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General Plan VOLUME TWO • 1981

ELEMENTS:

ENVIRONMENTAL RESOURCES
MANAGEMENT

SAFETY

SEISMIC SAFETY

NOISE

SCENIC HIGHWAYS

SPECIFIC PLANS

SHORELINE

SUGARLOAF

MARINERS ISLAND

DETROIT DRIVE

 San Mateo. Dept. of
Community Development.
GENERAL PLAN.
volume 2.

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GENERAL PLAN
VOLUME TWO • 1988

ELEMENTS:

Environmental Resources
Management

Safety

Seismic Safety

Noise

Scenic Highways

Specific Plans

Shoreline

Sugarloaf

Mariners Island



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ENVIRONMENTAL RESOURCES
MANAGEMENT ELEMENT
OF THE
SAN MATEO GENERAL PLAN

CITY OF SAN MATEO
DEPARTMENT OF COMMUNITY DEVELOPMENT
FEBRUARY 25, 1988

The Use of ERME

The Environmental Resource Management Element (ERME) is adopted as a single element of the General Plan of the City of San Mateo. It is organized in four major segments:

- 1) Goals and Policies
- 2) Resources Report
- 3) Action Program
- 4) Technical Supplement

The four segments may be used in conjunction, or they may be used separately, depending on the level of detail and emphasis the reader desires.

The Goals and Policies report summarizes the objectives the City wishes to achieve in terms of goals, policies and more specific implementing policies. The goals and policies are derived from the directive of State law, an analysis of environmental resources and constraints, and an evaluation of what the City will be able to accomplish.

The Resources Report identifies and describes significant environmental resources and constraints. The problem and issues are discussed; possible solutions are posed, but they do not represent City policy. The three major sections of the report include:

- Natural resources — trees and natural vegetation
 - water resources
 - wildlife
 - topography

- Urban Resources — scenic highways
 - historical/cultural factors
 - urban form

- Urban Development
 - Constraints — seismic safety
 - structural hazards
 - noise
 - general safety
 - energy conservation

The Action Program is a summary and brief description of the actions proposed as a result of the ERME analysis. Proposed actions fall in six categories — code additions, code revisions, planning studies, review procedures, direct action programs, and contingency plans. This action program describes the City's work program to realize goals and objectives.

The Technical Supplement includes background information which was used in the preparation of the Resources Report. It presents many references from other sources — sound standards, street tree lists, State law and others.

In each report the reader is directed to the table of contents for the specifics contained within. While each report may stand alone, they represent but a portion of the adopted element.

Purpose

This Environmental Resource Management Element is prepared in response to State requirements for General Plan elements and the City's desire for an environment of high quality and safety for its citizens. Six required elements are included in this document, for reasons explained below, in accordance with requirements of the State of California Government Code as follows:

- Section 65302(d) - Conservation Element
- Section 95302(e) and 65560 et seq. - Open Space Element
- Section 65302(f) - Seismic Safety Element
- Section 65302(g) - Noise Element
- Section 65302.1 - Safety Element
- Section 65302(h) - Scenic Highways Element

Approach

The Council on intergovernmental Relations (CIR) was charged by the legislature with developing guidelines for all General Plan elements. Cognizant of the proliferation of General Plan elements (there are nine), CIR suggested that the General Plan logically falls in three major categories and could be organized along those lines into a Transportation Element, Community Development Element, and an Environmental Resource Management Element.

San Mateo's ERME is prepared in response to this recommendation for consolidation since each of the six elements contained within the pages speaks to natural and/or man-made resources or hazards. This grouping avoids excessive duplication and cross references and presents a more comprehensive overview of the City's environmental setting.

Six elements of the complexity of those contained in this ERME present the reader with a potentially overwhelming flow of information. To allow for selective review, or review on different levels of detail, the Element has been arranged in the aforementioned four segments.

Relationship to Adopted Open Space and Conservation Element

The Open Space and Conservation Element was adopted in 1973. ERME is intended to expand and amplify the discussion on topics contained within the Open Space and Conservation Element. While both documents contain the same or similar discussion many subjects, the ERME takes precedent if a question of conflicting statements should arise.

The Open Space and Conservation Element defines and discusses nine categories of open space: first, City parks and recreation facilities; second, other public and utility lands and potential private open space facilities (such as private schools and private parks); third, privately held land; fourth, land subject to redevelopment; fifth, waterways; sixth, historic areas; seventh, scenic highways; eighth, specific rights-of-way. The ERME deals with all of these nine categories of land:

1) City parks and recreation facilities. The Open Space and Conservation Element notes that this category of land is the principal subject of the Parks and Recreation Element. ERME updates statistics and notes park space deficiencies. (Urban Form, 2-35)

2) Other public and utility lands and potential private open space facilities. The Open Space and Conservation Element places these lands in much the same category as 1) above. ERME does similarly. (Urban Form, 2-35)

3) Private vacant land. The Open Space and Conservation Element highlights 17 large vacant sites and gives a preliminary indication of the presence of up to six significant factors for evaluating open space value. ERME is structured to apply significant environmental factors to any vacant site, including the 17.

4) Land subject to redevelopment. The Open Space and Conservation Element points out that redevelopment may adversely affect surrounding properties. The ERME echoes this and recommends mitigating measures. (Trees and Natural Vegetation, 2-1, Scenic Highways, 2-22, Historic and Cultural, 2-26, Urban Form, 2-35)

5) Waterways. ERME duplicates this aspect of the Open Space and Conservation Element in the section entitled "water resources". (Page 2-8)

6) Historic Areas. This Open Space and Conservation Element subject is found in the "Historic and Cultural" section. (Page 2-26)

7) Scenic Highways. ERME copies this Open Space and Conservation Element topic in the section entitled "scenic highways". (Page 2-22)

8) Specific areas of community impact. The Open Space and Conservation Element indicates that urban open space should be a factor in planning of certain geographic areas of the City. The ERME does this, generally, in the Urban Form section. (Page 2-35)

9) Public rights-of-way. This Open Space and Conservation Element subject is addressed in the ERME in the section entitled "Trees and Natural Vegetation" and also the scenic highways and urban form sections. (Pages 2-1, 2-22, 2-35)

The main difference between ERME and the Open Space and Conservation Element is that the latter tends to discuss issues relating to areas, while the former discusses the same issues, and more, in general terms. The Open Space and Conservation Element does not set forth parcels as future open space lands; in fact, the Element states that "it would be unrealistic to say that this Open Space Element should rely on acquisition as a major implementation method. The premise of this Element must be that money available for park, recreation, and open space purposes will for the most part be allocated to the purchase of land designated in the Parks and Recreation Element, and that the Open Space Element must largely rely on alternative methods to fulfill its purpose." ERME, by reference to such significant factors as slopes, seismic safety, waterways, historic sites, etc., establishes the alternative methods.

Relationship of ERME to Other General Plan Elements

ERME is part of the San Mateo General Plan and relies on other elements to "round out" certain subject matters. The Parks and Recreation Element in particular touches and expands upon a number of ERME topics. Other elements must reflect their particular relationship to ERME. The Environmental Resource Management Element is unique in the sense that it discusses and evaluates environmental factors more so than development factors. The housing and Land Use Element must reflect these findings on environmental factors in discussing location and intensity of residential and non-residential development. The Circulation Element must reflect findings concerning streets and urban form and others. The Public Buildings and Facilities Element must take into account environmental policies of the ERME in setting forth the extent and type of needed public improvements.

ERME is furthermore intended to be consistent with other plans affecting San Mateo. Regional agencies with plans affecting San Mateo are the Association of Bay Area Governments (ABAG) and the Bay Conservation and Development Commission (BCDC).

San Mateo County plans also affect San Mateo. Many of the ERME subject matters are area-wide concerns and should be addressed in a consistent fashion by different jurisdictions. This is particularly true of scenic highways, an area in which compatibility with County proposals was the prime concern.

ERME Relationship To State-required Elements

Table 1 on page v reveals its relationship to the six required elements—open space, conservation, noise, safety, seismic safety and scenic highways. It indicates which specific subjects of the ERME address which one or which several of these elements. It also points out that the required content of the different elements is paralleled very closely by the content of the ERME. An analysis of the contents of the six elements indicates that they fall generally in one of the three categories into which the ERME has been divided—natural resources, urban resources, and urban development constraints.

The first category identifies, describes, and delineates natural resources within San Mateo. They include trees and natural vegetation, especially those within the Heritage Tree class; air quality; waterways, such as creeks, drainage channels, the Bay, lagoons, etc.; wildlife; and topographic characteristics.

The second area will identify, describe, and delineate the environmental resources of an urban setting. These urban amenities include scenic highways—streets that traverse areas of urban and natural beauty, and the corridor in which they are located; sites of historical and cultural significance; and features of urban form, such as parks, open space, and urban design.

The last area, urban development constraints, identifies, describes, and delineates existing and potential constraints and hazards to development and to existing buildings and structures. These constraints include seismic safety, dealing with geological and structural hazards; noise; general safety; and energy conservation.

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V. INTRODUCTION

A. PURPOSE

This Study and Review Report is the first of a series of four reports covering the Environmental Resource Management Program (ERMP) of the City of Vancouver. The second of the four reports will be a study of the environmental factors and physical resource conditions. The third report will be a study of the social and economic conditions and the fourth report will be a study of the environmental factors and physical resource conditions. The fourth report will be a study of the environmental factors and physical resource conditions.

The goals and policies of the ERMP are set out in the City of Vancouver Charter. The goals are to provide for the health, safety and general well-being of the citizens of the City of Vancouver. The policies are to provide for the health, safety and general well-being of the citizens of the City of Vancouver.

B. SCOPE AND LIMITS

1. SCOPE

1. To provide for the health, safety and general well-being of the citizens of the City of Vancouver.
2. To provide for the health, safety and general well-being of the citizens of the City of Vancouver.
3. To provide for the health, safety and general well-being of the citizens of the City of Vancouver.

2. LIMITS

1. To provide for the health, safety and general well-being of the citizens of the City of Vancouver.
2. To provide for the health, safety and general well-being of the citizens of the City of Vancouver.
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8. To provide for the health, safety and general well-being of the citizens of the City of Vancouver.
9. To provide for the health, safety and general well-being of the citizens of the City of Vancouver.
10. To provide for the health, safety and general well-being of the citizens of the City of Vancouver.

I. INTRODUCTION

PURPOSE

This Goals and Policies Report is the first of a series of four which comprise the Environmental Resource Management Element (ERME) of the City of San Mateo General Plan. The second is the Resources Report which describes a variety of environmental factors and discusses related problems. The third report is the Action Program which summarizes and briefly describes the actions proposed as a result of the ERME analysis. The fourth report is the Technical Supplement which details background and reference material used in preparing the element.

The goals and policies contained within this report summarize the City's basic objectives to be achieved, expressed as general goals. In addition, policies to achieve these goals are set forth. The policies result from the direction given by State law, an analysis of environmental resources and constraints, and an evaluation of what the City will be able to accomplish.

II. GOALS AND POLICIES

GOALS

1. To provide for the preservation and conservation of natural resources and open space in and around the City of San Mateo.
2. To maintain and enhance those community qualities which create a pleasing and safe environment.
3. To protect the public's health, safety and welfare from all types of community-wide hazards.

NATURAL RESOURCES POLICIES

1. Establish guidelines which will allow development while preserving significant trees and other natural vegetation.
2. Cooperate with regional agencies to develop measures which will maintain and improve the air quality in the San Francisco Bay airshed.
3. Implement the in-lieu parking program to strengthen the local transit system, and reduce air pollution.
4. Improve the quality of San Mateo's water resources by upgrading the water quality and bodies of water over which the City has control, and require private development adjacent to water to provide public access.
5. Develop the potential of Marina Lagoon to serve as a recreation facility, wildlife area, and drainage basin.
6. Upgrade wastewater treatment facilities to improve the quality of receiving waters and allow for reuse of wastewater.
7. Look upon drainage channels as potential recreation and scenic resources and require improvement to take multiple use into account.

8. Maintain development patterns which allow for the continued existence and viability of wildlife.
9. Explore the feasibility of preserving the few remaining wildlife habitats.
10. Limit grading of slopes over 25% for safety and site protection reasons.
11. Maintain the character of the natural topography of the western hills.

URBAN RESOURCES POLICIES

1. Designate streets of significant scenic value as scenic highways and develop programs which will maintain or enhance that scenic quality.
2. Designate scenic corridors and establish regulations to maintain the quality of scenic roads.
3. Encourage the conservation of historical, architectural, and cultural resources.
4. Develop regulations which will encourage developments to provide necessary factors for a satisfactory existence; including safety, privacy, and open space.
5. Develop a comprehensive right-of-way policy which outlines street tree planting priorities, criteria for street widening, and general enhancement of streets.
6. Reexamine and revise open space requirements in the R3 district; establish a design manual for development in the R5 district; develop design criteria for planned developments; examine the bonus features of the Executive Zone; and reexamine and revise necessary buffer and transition criteria for various zones.
7. Develop criteria for redevelopment of land to preserve existing vegetation, to promote harmonious development, and to prevent overloading of City facilities.
8. Classify public and semipublic lands into the Open Space Zone, as appropriate, to indicate the permanent open space nature of such lands.
9. Continually review significant private vacant sites, such as the 17 identified in the Open Space and Conservation Element, to determine which portions should remain as open space.
10. Effect the goals of the Parks and Recreation Element and those of ERME.
11. Acquire and develop open space areas delineated in the Parks and Recreation Element, with emphasis on sites with significant environmental qualities.
12. Develop specific plans for areas of significant community importance, such as the downtown area, El Camino Real, and Twenty-fifth Avenue.

URBAN DEVELOPMENT CONSTRAINTS POLICIES

1. Develop programs to reduce the risk to human life and property resulting from seismic hazards.
2. Obtain a definitive report from responsible agencies concerning the Crystal Springs Dam response to seismic activity.
3. Develop a dangerous building code and inspection program to correct unsafe structural conditions.
4. Develop a parapet ordinance and inspection program to eliminate hazardous parapet and building appendages conditions.
5. Promptly adopt Uniform Building Code amendments which provide for up-to-date building safety standards.
6. Develop measures to maintain adequately low levels of noise in the various sections of the community.
7. Develop measures which will reduce the risk to human life and property resulting from flooding.
8. Diligently pursue the reconstruction of the Bayfront Dike.
9. Investigate likely soil and geologic problems in land developments.
10. Maintain an up-to-date emergency/contingency plan and keep it effective by periodic training exercises and by obtaining necessary equipment.
11. Inform the public about major community hazards and advise on steps to take in the event of emergencies.
12. Study ways in which energy conservation measures might be implemented through City decisions.

GENERAL IMPLEMENTING POLICIES

1. Develop neighborhood or area EIRs.
2. Make findings on whether developments are consistent with, neutral to, or in conflict with the General Plan.

I. INTRODUCTION

PURPOSE

This Resources Report is the second of a series of four documents which comprise the Environmental Resources Management Element of the General Plan of the City of San Mateo. The first report, entitled Goals and Policies, sets forth environmental policies of the City. The third report is the Action Program and the fourth report is the Technical Supplement which details background and reference material used in preparing the element. The ERME is San Mateo's response to State requirements for six General Plan elements - Noise, Safety, Seismic Safety, Scenic Highways, Open Space and Conservation. The State-prepared guidelines for general plan elements reflect the appropriateness of combining elements with similar subject matters.

An analysis of the contents of the six elements indicates that they fall generally in one of the three categories into which the ERME has been divided—natural resources, urban resources, and urban development constraints. This Resources Report contains the discussion and evaluation of factors in these three categories. Possible alternative solutions to problems are posed for consideration but do not reflect City policy.

II. NATURAL RESOURCES

1. TREES AND NATURAL VEGETATION

A. Background

Natural vegetation in San Mateo can be classified into two main groups: riparian (streamside) woodland and oak woodland. The riparian woodland is characterized most by the presence of native California Bay Laurel. Willows are also prevalent in the areas alongside streams. Six species of willows are indigenous to this area; the most common being the shrublike Arroyo Willow. Growing alongside the willows is the Big Leaf Maple. This tree has some of the largest leaves of any common local plant. Several species of ash, including the Oregon Ash found in the watershed area, are common. Stands of native California Buckeye and Laurel remain in a few places. Poplars and elderberrys are also found along the streams throughout the City.

The oak woodlands are found in areas with lower water content in the soil. These areas are characterized by spreading broadleaf trees such as the Buckeyes, Live Oaks, Black Oaks and Blue Oaks. The California Black Oak, one of the prettiest oaks growing in California, serves as a microhabitat for numerous animals such as gray squirrels, raccoons and woodpeckers. The Coast Live Oak, probably the most commonly found oaks on the Peninsula, is San Mateo's official tree and is shown on the City's seal.

The era of the great estates had a profound influence on San Mateo's horticultural environment. Plants and trees were brought from throughout the world to enhance the estate gardens. Most prevalent of the imported vegetation was the Eucalyptus. Upon the advice of botanists and horticulturists, Eucalyptis were imported from Australia and planted to provide protection for slower growing elms, locusts and walnuts. When the estates were subdivided in the process of urbanization, the majority of the formal gardens were destroyed. Today many eucalyptus trees remain while much of the other vegetation has virtually disappeared.

B. Existing conditions

Vegetation is one of the most important components of the City's natural landscape. The values of the natural landscape may be classified as aesthetic, scientific, educational, recreational, and functional. In considering the aesthetic values of the landscape, the chief values lie in beauty which has not been altered by man. As San Mateo becomes more urban, the need for conservation of natural vegetation increases. Mature trees and shrubs introduce some relief to the man-made environment. They serve an important function in the oxygen-carbon dioxide exchange and as natural erosion-control agents. They also act as noise absorbers and wind breaks, enhancing air quality, moderating temperatures, and adding to property values.

1. Heritage trees. Over-intensive development resulted in the up-rooting of numerous trees, which in turn produced negative environmental effects. In addition to poor air quality, irritating winds, and deteriorating visual amenity, the removal of remaining major trees is a threat to the heritage of the City (see Figure 1). In December, 1968, San Mateo adopted a Heritage Tree Ordinance to preserve the remaining major trees as living landmarks which tie the City to its past.

2. Public landscaping resources. The City of San Mateo currently possesses approximately 204 acres of park land. This acreage is developed in a number of ways. Vegetation, both type and amount, varies from park to park. Native vegetation, such as California Buckeye, Laurel, and Coast Live Oak and vegetation which has adapted well to the area, such as the eucalyptus, are frequently found in the City parks. Central Park contains stately pines, oaks, cedars, and redwoods which were part of the Kohl Estate. At Coyote Point can be found eucalyptus, pine, and cypress planted by the Howard family.

3. Non-parks. Public non-park areas are also of importance to the City scene in forms of vegetation. City Hall, the several libraries, fire stations, the numerous schools, and other public buildings and facilities all receive careful landscape treatment. Scattered throughout the City these public places are visually pleasing and aid in linking the facilities with the areas, predominately residential, in which they are found.

4. Street trees. Among many factors affecting the open space value of a street, perhaps none is more important than street trees. Some 35,000 street trees line San Mateo streets. Each street has a designated street tree type. Both the City and property owners have a long-term commitment to plant and adequately maintain a substantial number of trees with priorities given to areas known to be deficient in vegetation. Street trees are important determinants of street quality. They provide shade, help control noise, and reduce winds. Such benefits affect significantly the character and quality of neighborhoods. Areas abundant in vegetation are valued higher than those which are sparsely planted.

5. Islands, ovals, median strips. Closely related to the street trees are the approximately 250 planted islands, ovals, and median strips consisting of some 20 acres. San Mateo Park, Baywood, and several other districts derive much of their value from these planted areas. In some sections of the City, trees are predominate on the islands, while in other areas small shrubs are more prevalent. The vegetation on these islands, ovals, and median strips provides visual amenities and helps support several forms of wildlife.

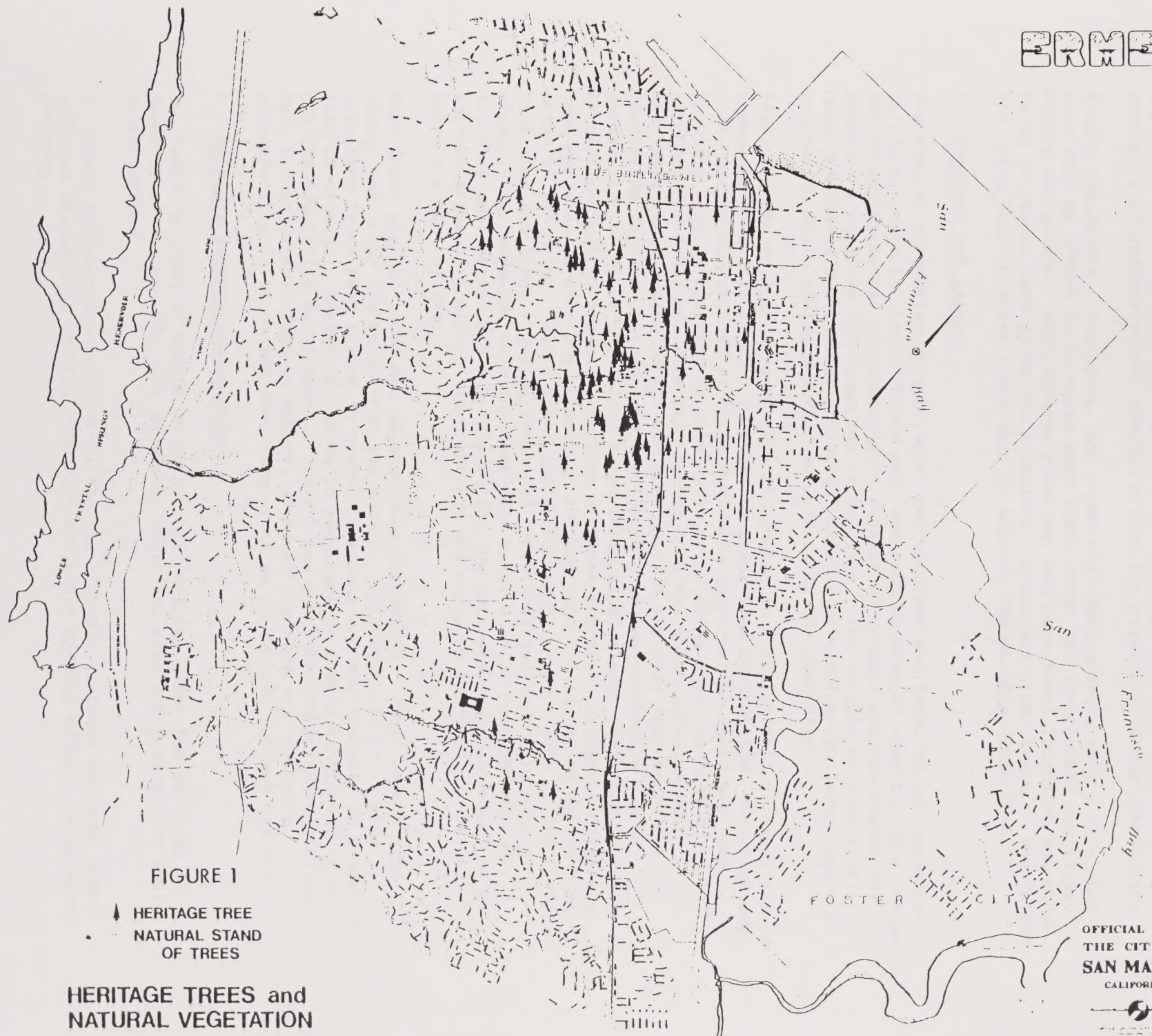


FIGURE 1

- ▲ HERITAGE TREE
- NATURAL STAND OF TREES

**HERITAGE TREES and
NATURAL VEGETATION**

OFFICIAL MAP
THE CITY OF
SAN MATEO
CALIFORNIA



6. Private landscaping resources. A good deal of the character of San Mateo depends on private properties. Many City residents are conscious of environmental values and this awareness is reflected in well-maintained lawns and yards. Numerous private landscapes throughout the City support a potpourri of vegetation and provide a pleasing respite from the urban scene.

Recent residential, executive, and commercial developments in the City have also made an effort to increase open space areas and incorporate amenities. Plazas and arcades, with diverse plantings and occasional fountains and other forms of usable open space are prevalent. Trees and other types of vegetation are being used in significant ways to balance the manmade urban form.

C. Problems and issues

The special properties of soil, air, and sunlight are gathered and organized by plants, each in its different way, and each because of adaption to a unique set of environmental circumstances. Vegetation creates and re-creates the atmosphere required for human and animal life. The results of urbanization have threatened the tenuous ecological balance by eliminating large stands of vegetation while adding numerous pollutants to the atmosphere.

Trees are the most threatened form of vegetation. The effects of construction damage to trees may be long lasting and cause slow destruction. Undercutting roots during excavation, skinning bark with construction equipment, and injuring bark by piercing it with nails or climbing spurs permits easy entrance for fungi and insects. Paving of areas which serve as water catchments or aeration points for root systems are also factors in the continuing decline of trees and the lowering of the watertable. Wind destruction of newly unshielded trees often topples many that stood together in self-protecting groups. The loss of trees increases erosion. Extensive root-systems aid in slope retention, an important consideration in the hilly areas of San Mateo. Dense trees and shrub stands prevent many of the surface landslips and large slumping common in grasslands and on non-vegetated slopes. Furthermore, even the leaf-fall makes a major contribution to hillside soil conservation by blanketing the soil with rain-absorbing mulch, thereby preventing winter storm erosion and reducing the load on the City's storm drainage system.

Most trees planted today are vegetatively reproduced. Their mature size, shape, and color are known from the outset. Conscious effort is made in selecting trees best suited to given conditions and most capable of producing desired effects. Advance planning is necessary to insure continuous high quality vegetative development. Since trees and other forms of vegetation take a considerable time to mature, advanced planning must be truly comprehensive in scope and long-range in time to achieve optimum results.

D. Possible alternative solutions

1. Identify areas of unique value in their natural state for purposed of educational, scientific, and aesthetic uses, and plan and program for their conservation.
2. Enact ordinances which control the use of trail vehicles on lands where such use may destroy natural resources and cause harmful effects on adjacent property.

3. Acquire the additional park lands recommended in the Parks and Recreation Element and demonstrate as essential to maintaining a quality lifestyle in the City.
4. Encourage developers to seek the retention of natural environments whenever possible.
5. Continue to diligently apply the provisions of the Heritage Tree Ordinance and the Site Development Code.
6. Support programs aimed at the beautification of the cityscape in the dense urban sections lacking in natural areas.
7. Promote public awareness about the role vegetation plays as a health, economic, aesthetic, educational and recreational resource.

2. AIR QUALITY

A. Background

Air pollution adversely affects man and his environment in many ways. It soils his home and interferes with the growth of plants and shrubs. It diminishes the value of his agricultural products. It obscures his view and adds unpleasant smells to his environment. Most important, it endangers his health.

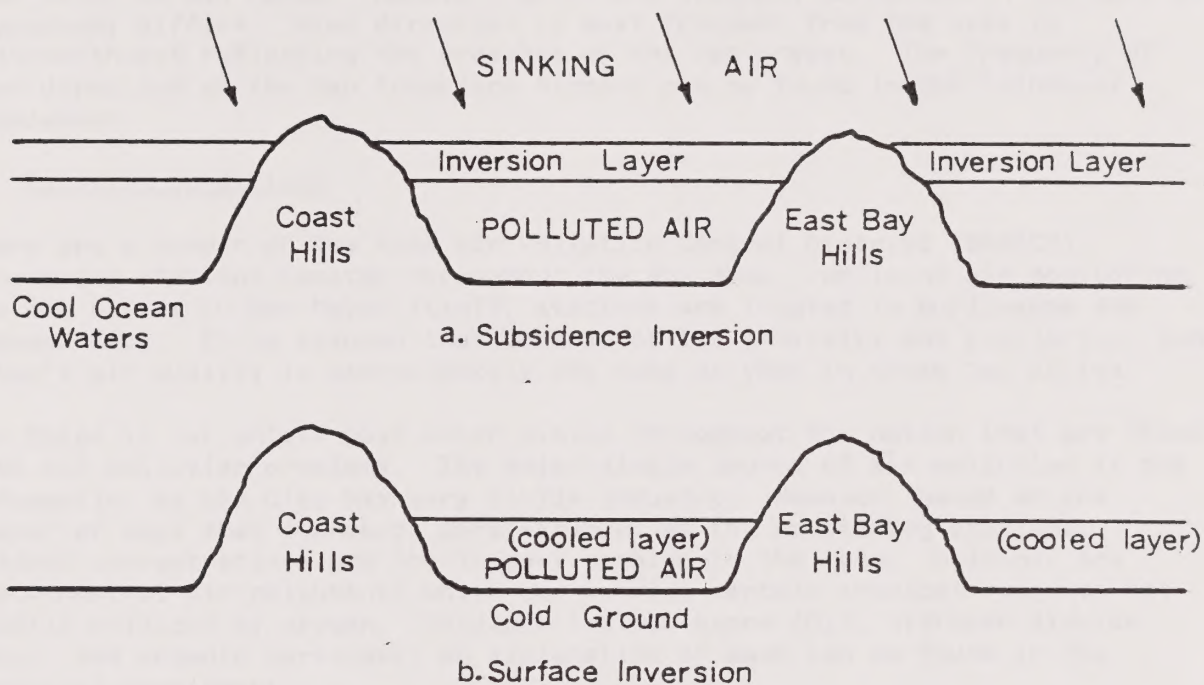
The extent of air pollution depends heavily on how weather disposes of the pollutants. The ability of the atmosphere to dilute and disperse them is limited by two factors — wind speed and the depth in the atmosphere to which air near the surface can be mixed. Although considerable variation occurs from day to day in the extent to which these factors disperse air pollution, the same patterns tend to repeat themselves over months or years. On some few days in a year, strong and highly stable conditions let small quantities of pollutants accumulate and build up to serious proportions. Between these extremes, variations in weather conditions create varying levels of pollution over a given area.

San Mateo and other Bay Area cities are naturally susceptible to air pollution. The flat surface of the Bay, surrounded by mountain ranges, is an ideal container for pollution.

Temperature inversion causes air to be trapped and prevents dissipation of pollutants. There are basically two types of inversions, as indicated in Figure 2, but their effect is essentially the same.

The subsidence inversion (Figure 2a) is present during most of the year except when winter storms move through the area. The elevation of its base varies: it may be as much as several thousand feet above the ground or as little as a few hundred feet. Because only the air under the inversion is available for diluting pollutants, elevations of the base is significant. For example, an inversion base located at a height of 3,000 feet permits the discharge of six times the amount of pollutants allowed by an inversion only 500 feet high — given equal air quality standards and wind movement. Summer weather is dominated by the subsidence inversion/sea breeze phenomena. The inversion

Inversions in the San Francisco Bay Area



Source: Franklin K. Lane, The San Francisco Bay Area, Its Problems and Future, Vol. II, 1966, Page 10.

tends to trap pollutants beneath it while the breeze aids in dispersing pollutants while moderating temperatures along the coast. During periods when the sea breeze does not blow, there is a very high pollution potential.

Surface inversion (Figure 2b) is present generally on clear winter nights when the earth cools rapidly and in time cools the air near the ground. The base now is at the surface of the earth and the pollutants are confined in a shallow layer of air close to the ground.

Of concern in air pollution dispersion is wind dispersion. The wind pattern at San Francisco International Airport is a good approximation of the winds that exist in San Mateo. However, winds are slightly different in the City as topography differs. Wind direction is most frequent from the west to west-northwest reflecting the presence of the sea breeze. The frequency of wind direction at the San Francisco Airport can be found in the Technical Supplement.

B. Existing conditions

There are a number of Bay Area Air Pollution Control District (BAAPCD) monitoring stations located throughout the Bay Area. While no air monitoring station exists in San Mateo itself, stations are located in Burlingame and Redwood City. It is assumed that because of its proximity and similarity, San Mateo's air quality is approximately the same as that in these two cities.

San Mateo is not unlike most other cities throughout the nation that are faced with air pollution problems. Its major single source of air pollution is the automobile, as the City has very little industry. However, based on the number of days that standards were exceeded at the monitoring stations, oxidant concentrations are the largest problem in the area. Oxidants are photochemical air pollutants which can oxidize certain chemical reagents not readily oxidized by oxygen. Oxidants include ozone (O_3), nitrogen dioxide (NO_2), and organic peroxides; an explanation of each can be found in the Technical Supplement.

A recent study by the BAAPCD of suspended particulates (visible air pollution) indicated some improvements in particulate levels during the years 1969-1971. A similar study, which measured oxidant concentrations (photochemical-smog) and included controls for weather variables, noted a plateau or leveling off effect during the past three years. These studies suggest a possible improving trend in air quality in the Bay Area basin, or at least no worsening of the situation.

C. Possible alternative solutions

1. Support and lend assistance to any countywide or regionwide air quality or transportation plan that would effectively reduce air pollution in the Bay Area.
2. Support the development of a countywide bus system and its coordination with the municipal bus system.
3. Implement the In-Lieu Parking Fee Program as an incentive to people to ride the municipal bus system.

4. Establish land use policies aimed at reducing vehicle miles traveled.
5. Evaluate policies within the Circulation Element of the General Plan for their effectiveness in reducing pollution from vehicular trips.

3. WATER RESOURCES

A. Background

Water and man's use of it has shaped much of San Mateo's early form. Rains falling on the Santa Cruz Mountain range have eroded them over the millenia. Streams formed ravines and valleys carrying sediment toward the bay and depositing it along the way and in the bay itself. Man's dealing with water has in the most part been cavalier. Demands for land and development on it resulted in the burial or culverting of creeks and diking and filling of the bay. Water as a resource and part of the City's fabric is currently in a state of neglect, having merited only utilitarian concern as water from human consumption, runoff water to be conveyed without flooding, and water to be excluded from urban development.

To the west, Crystal Springs Reservoir impounds water transported from the Hetch Hetchy water project of the San Francisco Water Department. The activity of the San Andreas Fault and dams have made this area a large natural reservoir. Crystal Springs lakes and the surrounding watershed land create a unique and beautifully scenic area. Its character is protected by the water department's ownership of most of the surrounding watershed.

A number of year-round and intermittent streams flow from west to east. However, over the years most have been buried, culverted, or channeled for drainage to facilitate rainwater runoff (see Figure 3). Some of the streams traverse the rear yards of private property. In such cases the streambed centerline is generally the property line.

B. General description

1. San Mateo Creek. San Mateo Creek is the most significant of these streams. The creek originates from Lower Crystal Springs Reservoir at Crystal Springs Dam. It was one of the largest creeks on the Peninsula; certainly the largest on the Bay side for it drained the great Spring Valley Catch Basin that now helps furnish water to San Francisco and other Peninsula cities.

The creek is bordered by Crystal Springs Road and both meander through steeply sloped undeveloped hillsides, first through unincorporated areas and then the Town of Hillsborough. The creek enters San Mateo about two blocks west of El Camino Real. From that street to the railroad, San Mateo Creek flows in either underground or surface concrete culverts. Between the railroad and Bayshore Freeway, the creekbed remains in a relatively natural state. From Bayshore to the bay, however, it has been channeled for drainage purposes.

2. 16th Avenue Channel. The channel begins at 16th Avenue and the railroad and terminates in Marina Lagoon by the waste water treatment plant. It is an artificial channel along its entire length. The channel and access alongside it is owned by the City of San Mateo. It is irregular in grade which results in settling velocities, odors, and pest control problems.

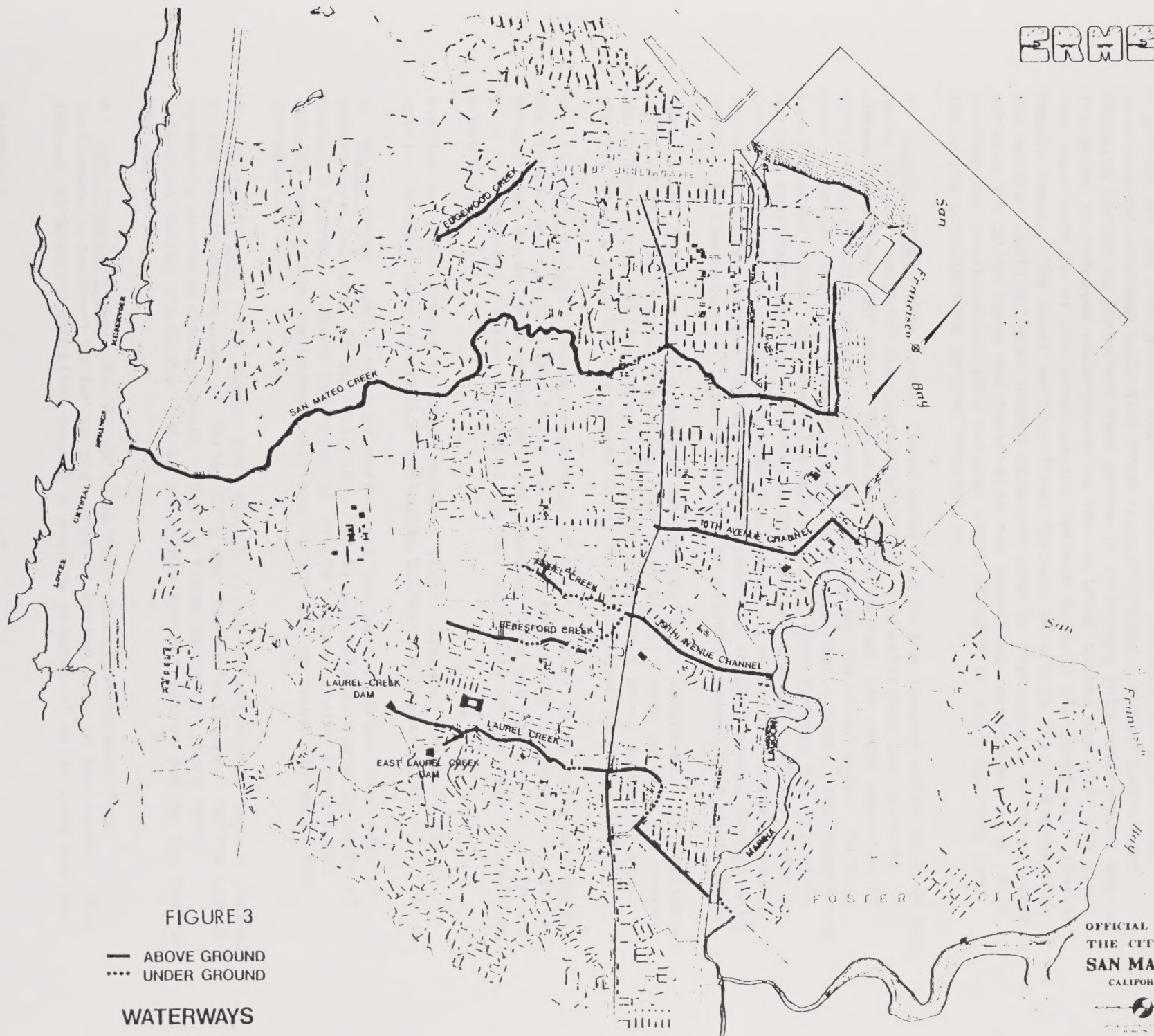
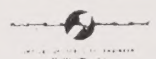


FIGURE 3

— ABOVE GROUND
 UNDER GROUND

WATERWAYS

OFFICIAL MAP
 THE CITY OF
 SAN MATEO
 CALIFORNIA



3. 19th Avenue Channel and Beresford Creek. This open channel originates at the railroad tracks, traverses Fiesta Gardens, and empties into Marina Lagoon. It drains an area bisected by the J. Arthur Younger Freeway.

A portion of the 19th Avenue channel watershed includes Beresford Creek. This is a natural creekbed extending from Younger Freeway, behind Laurelwood Shopping Center to Beresford Park where it is forced into underground drains. Its water is conveyed underground to the railroad tracks and the open ditch. The lower portion of the creek passes through parcels developed with single-family homes. The upper portion flows through an arroyo which retains much of its natural setting, even though adjacent land is developed. These adjacent parcels are quite large and their size has permitted development on a small portion and preservation in a natural state of much of the remaining land, including considerable natural vegetation.

4. Laurel Creek. The Laurel Creek watershed is the largest after that of San Mateo Creek. South of the Laurel Creek Dam, its watershed includes the undeveloped Sugarloaf area. Below Laurel Creek Dam, the creek backs on single-family homes on one side and a parksite on the other side. Further east it passes the rear property lines of single-family homes, the Abbott and Laurel School sites, and the Hillisdale Library, then through the Hillisdale Gardens apartment complex. The creek then passes through culverts under El Camino Real and the railroad tracks and assumes a relatively natural course for a few blocks until it enters an open concrete channel around George Hall School, to Lauriedale. There it becomes an unlined channel to Marina Lagoon.

East Laurel Creek is also a part of the Laurel Creek watershed. It originates north of the East Laurel Creek Dam near East Laurel Creek Drive. Its course abuts rear yards until it traverses under Laurelwood Drive appearing again shortly before entering the Laurel Creek tributary near Fernwood Street.

5. Edgewood Creek. The major portion of this creek lies in Hillsborough and Burlingame and its drainage basin is oriented towards Burlingame. It passes through San Mateo just to the west of Edgewood Road and parallels it. In the City the creekbed follows a natural course, generally at the rear of abutting properties.

Similar to other creeks in their natural state, Edgewood Creek is highly scenic; considerable vegetation including bushes and trees abound.

6. Borel Creek. While most of this creek has been diverted into open or underground culvers, it is still in a relatively natural state in parts of Foothill Terrace. Where the creek is in its natural state, significant natural vegetation including trees and shrubs may be found alongside the streambed.

7. Marina Lagoon. The former Seal Slough is now an artificial lagoon created by the diking and filling of Foster City and Mariner's Island. Marina Lagoon currently serves a dual purpose: it is a flood basin for storm water retention during the winter and is available for recreation during the rest of the year.

8. San Francisco Bay. San Mateo's bayfront shoreline extends from Burlingame's southern border in the north to Foster City in the south. This concave stretch of shoreline bounds a shallow expanse of water that the two

projections of Coyote Point and Foster City tend to shield from most tidal stream flow. The resulting hydraulic pattern reflects a rather quiet shallow body of relatively still water.

The shallow nature of the San Mateo bayfront results in broad expanses of exposed bottom mudflats at low tide. The entire length of the shoreline has been altered by diking so that at high tide this same area is covered by water to the face of the dikes. This artificially created situation leaves less than two acres of land that could be classified as marsh. The hinterland has for the most part become urbanized. Plans for the entire shoreline are contained in the Shoreline Plan of the General Plan.

9. Water quality. San Mateo's water is supplied by the California Water Service Company from the San Francisco Hetch Hetchy source in the Sierra Nevada Mountains. The City's water supply is of unusually good quality. It lends itself to exceptionally good treated wastewater for reuse for the irrigating of landscape sources. Any increase in chemical constituents after the wastewater passes through the sewerage system is not enough to rule the water unacceptable for most potential reuse purposes.

C. Problems

1. Urban encroachment. In years past the population did not require substantial open space acquisition for recreational use. Due to a limited population there was not the pressure that exists today on lands and waterways for their development to recreational uses. However, the population of San Mateo has grown to such an extent that encroachment on the City's watersheds and shorelines has created a need to provide parks and open space using the aesthetics of moving water to create a mood of tranquility.

The watershed around San Mateo has often been considered a negative resource due to flooding potential and increased costs to the City in engineering and flood control construction. Because of this, past engineering studies, as a rule, did not deal with the aesthetic and recreational value of watershed areas. The main emphasis of these studies was the amounts of water present at a particular point and the speed in which it moves to discharge from a given area. However, with increasing demands for open space and recreation the multiple use of waterways is becoming a necessity.

An example of multiple use is the proposed development of Marina Lagoon. The Lagoon is primarily a flood control basin which receives fresh water from three major creeks. In addition, the basin receives bay water from O'Neil Slough, principally during the dry periods of the year. Usually at some time in spring, the tide gates are opened and the basin level is adjusted to accommodate a wide variety of recreational activities.

In developing waterways for recreational purposes the quality of water as well as the capability of uses, if more than one exists, should be given substantial consideration. Public access and adequate maintenance are also equally important. Many times development adjacent to the waterways may make accessibility difficult. However, in areas where vacant parcels exist, proper measures should be taken to allow for the future development and access to these recreationally potential waterways.

2. Aquatic nuisance. There exists a variety of significant nuisance problems associated with Marina Lagoon. During the development and maintenance of the Lagoon, local residents, responsible agencies, and developers have been faced with various problems. A series of studies have been performed on the water quality of Marina Lagoon. A cursory review is found in the Technical Supplement.

D. Possible alternative solutions

As noted previously, the areas adjacent to waterways are mostly developed. What were once areas of natural greenery and vegetation are now culverted or adjacent to some type of development. This section addresses itself to the remaining areas of open space recreational and/or scenic value associated with some of the existing waterways and the potential development of these areas.

1. San Mateo Creek. The most significant portion of San Mateo Creek lies between the railroad and Bayshore Freeway. This portion of San Mateo Creek is an unusually and often unseen resource. It is the only significant natural creek area in a built up neighborhood. Buildings are not situated close to the creek as spillage of water from Crystal Springs Lakes during excessive rainy periods frequently occurs. This results in considerable water flow of consequence to developments immediately adjacent to the creek.

For most of its length there is sufficient space to feasibly develop a linear park. This is particularly true along Second Avenue between Grant Street and Fremont Street. There is also considerable vacant land adjacent to the creek across Third Avenue on the block between Third Avenue and Fourth Avenue and Humboldt Street and the Bayshore Freeway interchange.

Problems exist in such places where buildings are close to the water making it difficult to provide walking access adjacent to the water. However, good design could overcome this problem and that of continuous access where the creek flows below street level.

Another problem is that the creek is affected by tidal action. It is not uncommon to find traces of salt water as far up the creek as the Bayshore Freeway.

Improvement as a linear park could enhance this area and provide a number of other benefits. The varied vegetation could be preserved and water flow could be improved, thereby making the creek an excellent recreation facility. At its eastern end it could help improve one of the more significant entryways into the City; an entry which is now quite unattractive. At this point the creek traverses under East Third Avenue, a proposed scenic roadway. Enhancement of the two would be an asset to the City. At its westerly terminus it could improve the appearance of the downtown area.

From Bayshore Freeway to the bay the creek is unattractive. However, there is room for improvement. In this location the creek is close to the bay where a shoreline park will be created in the future. This park could be extended inland along the creek. The creek itself is adjacent to a large vacant parcel of land so that future improvement is not constrained by existing development. Future development of this parcel could include treatment of the creek as a linear park and access point to the future Shoreline Park.

2. 16th Avenue Channel. The potential of the drainage channel as a creek or body of water is limited. However, certain design improvements could be made similar to those used for a portion of the channel along and around Bayside School. There the restructuring of the channel resulted in a curvilinear alignment along which a small park strip may be possible.

3. 19th Avenue Channel. The open channel is very much like the 16th Avenue channel, unlined for the most part, with adjacent service access. It is shorter but could be used for pedestrian or bicycle paths. A future park site borders on the channel in the Fiesta Gardens planning area section, offering the opportunity to include this water feature in the design scheme of the park.

Between Bayshore and Marina Lagoon, the channel traverses vacant land. Future development will, therefore, allow the possibility to deal with the drainage channel as a design opportunity rather than the single conveyance purpose it currently serves.

4. Laurel Creek. The potential of Laurel Creek below East Laurel and Laurel Dams is limited, inasmuch as the creek passes through developed areas. However, the natural portions of the water course may lend themselves to a linear park treatment. Approximately a block and a half of one side of the creek is publicly owned - Abbott and Laurel Schools on the north and Hillsdale Library on the south. The creek is adjacent to vacant land in Lauriedale, thus offering the opportunity of including the water feature in plans for the vacant land.

5. Marina Lagoon. As an open space and recreation resource, Marina Lagoon is important. It is a physical separator of developed land and enjoyable to view. Its usefulness as an active recreation resource is limited, depending on its function as a catch basin and on the solution of the water quality problem.

Future improvements will result in improved water quality and increased use of the lagoon as an active recreation area. It would, therefore, seem appropriate to provide public access along its shore wherever possible and to design projects on currently vacant land so that they take advantage of the lagoon and in turn enhance it.

6. San Francisco Bay. In 1971 the City of San Mateo adopted the Shoreline Park Plan which included the entire waterfront within the City limits. The plan was influenced by the Bay Conservation and Development Commission (BCDC) policies of minimal fill and is thought to be in conformance with the BCDC Bay Plan. Approval of this specific shoreline plan is pending before BCDC. The plan includes a 700 boat marina to be located at the mouth of Marina Lagoon; access to the lagoon is proposed.

7. Water quality. Eventually the City will use treated wastewater for irrigational purposes. The potential for reclaimed wastewater reuse for purposes other than landscape irrigation, including groundwater recharge, industrial process or cooling water, and development of recreational lakes, is minimal and in any case will not be considered as a viable alternative to near-term continued Bay discharge of the major portion of the City's wastewater.

4. WILDLIFE

A. Background

All living things are meshed in an inter-dependent web of life. The natural environment is a sensitive indicator of a healthy human environment. Every form of life, including man, is dependent of the quality of its environment for the maintenance of the species. Because fish and wildlife and man are inseparable from land and water, it is necessary to plan projects to conserve and improve wildlife-related values while maintaining and improving the quality of man's environment.

Over three square miles (3.3) of San Mateo are tidelands. This portion of the City is an intrinsic part of the Bay ecosystem (see Figure 4). The fishery resources of San Francisco Bay includes anadromous fish (which come through the Bay during their lifecycle to spawn), native fish that spend their entire lives in the Bay, and crabs, shrimp, and shellfish. The anadromous fish are the most important. They generally mature in the ocean and enter fresh water to reproduce. Anadromous fish include striped bass, king salmon, sturgeon, steelhead trout, and shad. The shallow waters along the San Mateo shoreline are important to the survival of young salmon and steelhead trout. Striped bass use virtually the entire Bay.

Smelt and anchovies, both plankton feeders, are found throughout the Bay. Clams are present in coarse sand and gravel areas. Oysters live in the deeper waters offshore. Shrimp, which feed on decaying marsh plants and are the basic diet of almost all the larger fish, move into shallow water at high tide and return to the deeper channels at low tide. These animals may be found at Coyote Point and other remaining wetlands in the City.

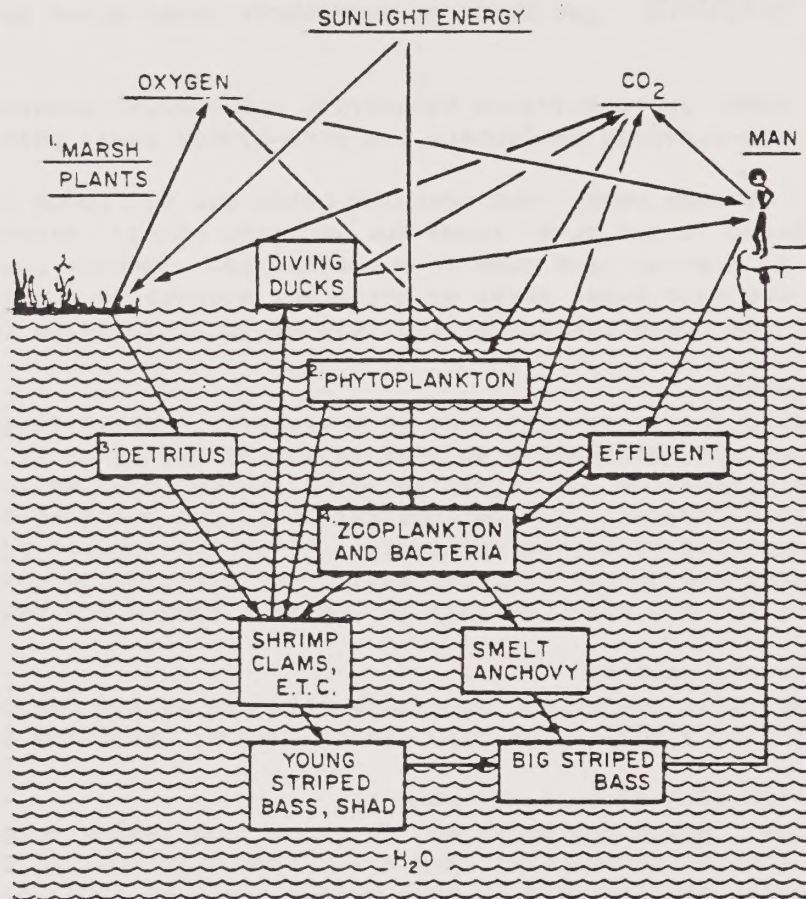
San Francisco Bay is the largest river-mouth area along the entire California coast. As such, the region bordering the Bay is vitally important resting place, feeding area, and wintering ground for the thousands of birds on the Pacific Flyway. Marsh areas are used for nesting, feeding, and protective grounds for many birds. Shorebirds depend upon salt production lands for resting areas during high tide. Exposed mudflats produce mussels, clams, snails, worms, and insects that shorebirds depend upon for survival. Open water areas are used by ducks, cormorants, geese, and loons for resting and sometimes for feeding.

B. Existing conditions

Few quality habitats for fish and wildlife resources remain within the immediate area. Intensive urbanization in the flatland areas, expansion in the Western Hills, and considerable fill along the shoreline have destroyed or seriously altered natural wildlife areas (see Figure 5).

Aside from the species of birds and small animals found in private yards, San Mateo is largely devoid of areas suitable for wildlife. Any remaining natural habitats, therefore, are especially significant. One aspect of their significance lies in their proximity to the people. These areas should be maintained to serve the needs of the citizens: for the enjoyment of those who value the presence of wildlife in man's environment and as an easily accessible laboratory for the study of biology, botany, and ecology.

FIGURE 4
Simplified Bay Ecosystem



Source: H. Thomas Harvey, Some Ecological Aspects of San Francisco Bay, Prepared for San Francisco Bay Conservation and Development Commission, San Jose State College, October 1966

1. Mariner's Island. The remaining open areas of Mariner's Island support significant amounts of wildlife. Numerous water-oriented birds utilize the channels, rainwater ponds, and open fields for feeding and resting. A delicate balance exists among the interdependent species in this area; when one species is affected negatively, serious repercussions extend to other members of the community.

Geese and puddle ducks such as widgeon, shoveler, pintail, cinnamon, teal, and mallard; diving birds such as pie-billed and western grebes, mergansers, and goldeneyes; field birds such as brewers and red-winged blackbirds, meadow larks, horned larks, linnets, song sparrows, psitts and gold finches; raptors (birds of prey), including owls, hawks, kites, and falcons which share the local supply of small rodents with egrets and herons; and ring-billed gulls, field mice, and jack rabbits are just some of the many species inhabiting Mariner's Island.

2. Marina Lagoon. Marina Lagoon is relatively deep and therefore inhabited by species which survive well in deep water. Several types of diving ducks—goldeneyes, scaups, canvasbacks, and pie-billed grebes—find the area a suitable niche. Along the edges may be found long legged waders, such as willets, yellowlegs, egrets, and herons.

3. Mouth of Seal Slough. The 16th Avenue channel, bringing storm waters from the Wester Hills of San Mateo, converges with the Marina Lagoon outlet near Third and Detroit Avenues.

Relocation of the old sewer outfall in the last 1960's has permitted a remarkable recovery of the bayfront marsh. Elimination of the effluent flow is allowing the area to refurbish itself. Given the chance, it can be a most viable wildlife habitat. The implementation of the proposed yacht basin may have adverse affects on the refurbishing of the bayfront marsh. Although the Shoreline Park Plan designates an area as marshland, there is not present indication that this area will turn to marshland, especially if the bayfront dike is improved.

The area has the characteristics of a salt marsh: graminoid (gum plant), pickleweed, and cord grass exist at different elevations and locations along the water. As a marsh, the area is a nursery for numerous forms of wildlife. Shell fish breed in the area; snowy and American egrets, avocets, willets, ruddy ducks, sparrow hawks, and mourning doves are all found here.

Fish-eating red-breasted mergansers and blue-winged teals have recently been seen in the area; their presence emphasizes the natural regeneration in progress.

4. Pacific Boulevard. The grove of eucalyptus trees along the drainage channel off of Pacific Boulevard is a popular roosting place for snowy egrets and black-crowned night herons. At dusk throughout the winter, the birds come in from various area sloughs. They settle in pairs for the night, then leave for feeding areas at sun up. The importance of this eucalyptus grove cannot be underestimated. Without a suitable place to rest, the niche of these large birds would be seriously altered.

5. Coyote Point. Numerous fish and wildlife species are found in different locations in Coyote Point. On the Knoll, wildlife consists of small rodents and birds. The high wild grass provides food and protective cover for animal populations such as meadow mice, grasshoppers and crickets. These animals are the basic food supply of the sparrow hawks found at Coyote Point. Any alteration in ground cover will bring changes in these populations. Meadowlarks, goldfinches, and other migratory birds such as the white-crowned and golden-crowned sparrows are also found on the Knoll.

Along the Peninsula Beach there is a muddy sand bottom which differs from the Bay mud to the north and south. Certain animals prefer this sandy-mud substrata to Bay mud. Striped bass, shiner perch, sculpins, and brown smoothhound sharks are among the aquatic species found on the sandy bottom.

Several exotic mollusks have become established in the Bay waters around Coyote Point. Two examples are the Eastern white slipper shell and the Oriental mussell. The mussell occurs in the deeper water offshore. These animals, which probably arrived accidentally in shipments of oysters from the Atlantic Coast and Japan are currently under scientific study.

6. Arroyo Court. Arroyo Court is a capsulized riparian woodland close to the downtown. Along the San Mateo Creek stream bed, willows and elderberry trees are found in abundance. Common bushtits, brown towhees, scrub jays, stellar jays and other small birds inhabit these trees. Red and gray squirrels are also plentiful in the area.

7. Sugarloaf-Laurel Creek. The Laurel Creek Canyon area at the base of Sugarloaf Mountain and Sugarloaf itself, comprise an important natural area. Along the creek itself can be found many riparian woodland inhabitants. Hummingbirds, common bushtits, scrub jays, song sparrows, and California valley quail (state bird) are all know to inhabit the area. The more exposed grassland areas harbor Western meadowlarks, horned larks, red-tailed hawks, meadow mice, and bush rabbits. Ascending Sugarloaf, the chaparral areas are the major habitat of the seed and insect-eating birds which are very important to the ecology of that biome (environmental setting). Several species of finches and sparrows are found here. The woodland area primarily supports the type of wildlife found in adjacent areas including raccoons. Deer, once frequently noticed in this area and throughout the Western Hills, are rapidly disappearing due to continual urban expansion. They cannot compete with man-made changes that reduce their habitual areas and severely alter their lifestyle.

8. Crystal Springs Canyon. Wildlife is not constrained by City limits and therefore crosses City boundaries at will. The verdant areas along Crystal Springs Road and Polhemus Road are teeming with wildlife. Since these areas are partially within the City limits and within the City's sphere of influence, and since they serve as an important natural area for many citizens, the preservation of natural resources in the canyon is of concern to the City of San Mateo.

C. Problems and issues

There is a pressing need to recognize and appreciate the highly specialized nature of lifeforms. Each species has a preference and a place, and is never "out of place." Man-made developments have caused rapid changes and immense pressures which have almost irreversible destructive effects. All remaining biomes, vital to the existence of wildlife, have reached their saturation points. There is nowhere for displaced wildlife to go.

The biological interrelationships which exist among living organisms, man included, and the dependence of all living organisms have on each other makes it imperative that the less defensible pieces of the environmental puzzle be preserved. At times, preservation can only be achieved at costs that do not seem immediately relevant. Critical problems arise in trying to determine to what extent immediate consideration vies with the future.

It is only logical to attempt to preserve as natural an environment as possible in those areas critical to sustaining wildlife. Often it is not a dichotomous matter of doing or not doing something, but rather how one does it. Man's use of a resource area should exist in concert with the needs of wildlife rather than instead of those requirements.

1. Effects of fills and piers. The worst of many problems affecting fish and water birds is the elimination of three of their four principal habitats (tide flats, marshes, and shallow areas — leaving only water) through filling. Most marsh areas have been "reclaimed" through diking and filling. As a result, the waterfowl populations have been drastically reduced. Fills and piers also alter the direction and velocity of water movements created by tides and fresh water inflows.

2. Effects of water pollution. Pollution has resulted in the contamination of shellfish and other marine life, making them unsafe for human consumption. Domestic sewage and industrial wastes are the usual sources of such contamination. Another major effect of pollution is the elimination of dissolved oxygen in the water. Pollutants consume the oxygen necessary to marine life. In addition, some pollutants are poisonous and occasionally large numbers of fish are killed by accidental discharges of untreated toxic wastes.

3. Effects of dredging. Dredging may be beneficial if it improves tidal flushing or the fish habitat. On the other hand, dredging removes the aquatic life on the bottom, increases the turbidity in the area, and causes sedimentation problems.

4. Endangered species. The California Department of Fish and Game recognizes that a number of species found in California are endangered or rare. Several of the species included in this group are known to inhabit the Bay Region and the San Mateo area in particular.

One of the endangered is the California Clapper Rail. Highly specialized and apparently incapable of adapting to environmental change, clapper rails are found in only a few of the salt marshes in the Bay Area. They have been observed in the small marsh of Coyote Point. Their presence implies that the marsh has increased sufficiently to support the species. Bay fill and drainage as well as industrial pollution threaten the continued existence of the Clapper Rail.

The Salt Marsh Harvest Mouse, unique because it is one of the few mammals able to drink salt water, is also an endangered species. Continual destruction of salt marsh habitats, such as portions of Mariner's Island and the mouth of Seal Slough, by bay fill and diking are major factors contributing to the decline of the salt marsh harvest mouse.

Another endangered species that may be seen at Coyote Point is the California Brown Pelican. Brown Pelicans also fish the Marina Lagoon area. In recent years the species has had difficulty reproducing itself due to collapse of thin-shelled eggs during incubation, attributed to the effects of environmental pollutants.

D. Possible alternative solutions

1. Study the feasibility of protecting or conserving areas recognized as significant wildlife habitats.
2. Manage fish and wildlife resources so that degradation does not result from changes in land use.
3. Seek the multiple use of fish and wildlife resource lands in a manner which minimizes conflict and encourages economic, educational, ecological, and/or recreational benefits.
4. Examine the feasibility of wetland preserves which would provide waterfowl habitat necessary to the maintenance of the flyway route. Such wetlands would also function as important habitat sources for many other small animal species.
5. Support flood control, water quality enhancement, and air pollution control programs which will enhance the environment for wildlife and man alike.
6. Obtain rights of public access to any resource areas not under City ownership.
7. Where a natural resource occurs on a boundary, seek the possibility of resolutions asking mutual protection of such areas. Cooperative efforts should be pursued in the Sugarloaf-Laurel Creek and Crystal Springs Canyon areas, and any other places where the situation may arise.

5. TOPOGRAPHY

A. Background

San Mateo is located east of the Santa Cruz Mountain Range which has an average height of approximately 1,200 feet and extends north and south through San Mateo County. The City is located on the bayside and includes the bayside foothills, bayside plain, filled in tidal meanders, bay marsh, and mud flats (see Figure 6). The elevation of San Mateo varies from about two feet at the bay muds to 675 feet at the College of San Mateo. The San Bruno and Crystal Springs Gaps are corridors which allow cooling sea breezes and fog to pass and influence summer weather.

B. Existing conditions

Significant topographic features in the content of this section are primarily the foothills of the Santa Cruz Mountains or the western hills. Development

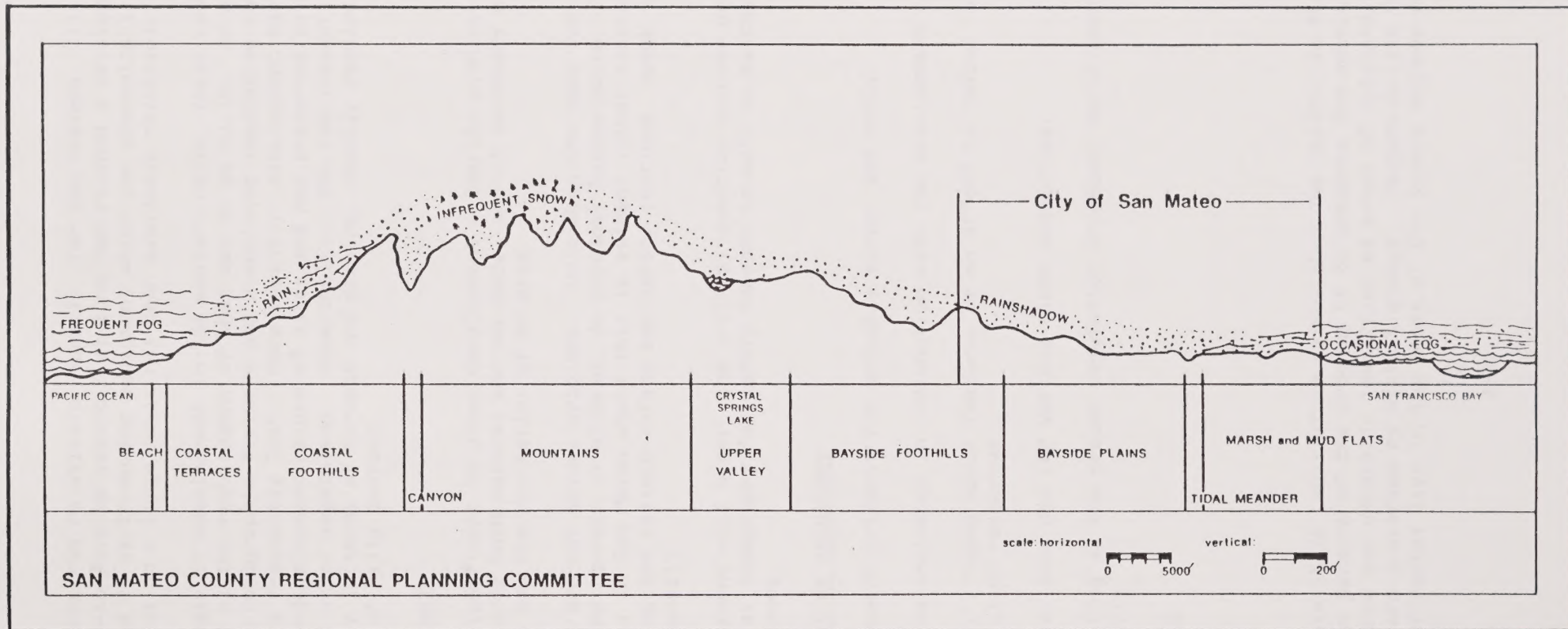


FIGURE 6

SECTIONAL ILLUSTRATION OF SAN MATEO TOPOGRAPHY

in these areas has occurred relatively recently, for two reasons: 1) the availability of easy-to-develop vacant flat land had reached a development-saturation point, and 2) earth-moving equipment which can economically shape physiographic features on a large scale has been available relatively recently.

During the early stages of development in the western hills, their resultant shape was determined by the requirement of what was to be built. As a consequence, natural topographic features and associated vegetative cover, including trees, were frequently lost. More recently, development has taken into account the pre-development nature of sites and has preserved both hills as well as trees and other vegetation. Nevertheless, the requirements of buildings, especially in terms of streets and parking, usually require extensive reshaping of hilly terrain.

C. Problems and issues

Topography becomes significant to urban development primarily with respect to two factors: 1) hazards both natural and man-made, and 2) secondary effect on vegetation, wildlife and the aesthetics of an area.

Slopes in themselves are not severe problems. Only when the need for development occurs and terrain is altered, do problems become acute. There are a number of areas in San Mateo where this is evident (other sections of this report, including the seismic safety and safety sections, speak to this concern in greater detail).

Assuming that development will occur, the critical question becomes one of preserving the natural topography for safety reasons as well as aesthetic and community values reasons.

D. Possible alternative solutions

1. Determine development criteria for unstable slopes and soils.
2. Revise the grading ordinance in conjunction with the development criteria.
3. Preserve the City's topographic features as an effort to reduce loss to property, life, and plant resources.
4. Establish the best land use for various slope categories.
5. Request the planting of the proper vegetation accompany development to reduce erosion of soils.

III. URBAN RESOURCES

1. SCENIC HIGHWAYS

A. Background

In 1963 the California State Legislature established the California Scenic Highway Program. The purpose of the program is to preserve the amenities of scenic highways. These are generally identified as areas of outstanding natural beauty that are traversed by State highways. Responsibility for scenic designation of routes lies in the hands of the Scenic Highway Advisory

Committee and the State of California, Department of Transportation. A request originating at the local level (City or County) must be made in order to receive such designation.

Joint Cities/County Scenic Highway Program. The County of San Mateo is undertaking a study of scenic highways within its jurisdiction. The City of San Mateo is cooperating with the County since a joint effort is the most rational course to take. There are several instances where designation of routes is logical only if the two (or more) jurisdictions designate the same routes as scenic.

B. Scenic roadways

Several streets within the City merit identification as streets of significant visual value or streets with a potential to assume such quality (see Figure 7). The following streets meet this criteria: Crystal Springs Road, Polhemus Road, Younger Freeway, and Alameda de las Pulgas. East Third Avenue has been identified as having the potential of being scenically developed. The first four streets will more than likely become part of the County Scenic Highway System and be so designated. Skyline Boulevard, the only officially designated scenic highway in the county, and the Junipero Serra Freeway are also identified by the County, albeit neither traverse City boundaries.

1. Crystal Springs Road. Perhaps the most scenic of roads in San Mateo is Crystal Springs Road, connecting El Camino Real and Skyline Boulevard. It is a narrow winding road paralleled for most of its length by San Mateo Creek. In its upper portion, Crystal Springs Road winds through the undeveloped San Mateo Creek watershed. Adjacent lands are quite steep and heavily wooded.

The City of San Mateo has jurisdiction over only a small portion of Crystal Springs Road, just west of El Camino Real. Further west, the street forms the boundary between San Mateo and Hillsborough and finally through unincorporated parts of the County. Because Crystal Springs Road travels through very scenic areas, it has importance to San Mateo, even outside City limits.

2. Polhemus Road. Polhemus is very much like Crystal Springs Road, connecting that street with Ralston Avenue. Adjacent lands comprise the same steep hills, but also include commercial (Crystal Springs Shopping Center) and residential development. A good deal of this land is owned by the San Francisco Water Department and thus excluded from potential development.

Polhemus Road is in the County except for a very small stretch that traverses the City. However, San Mateo County Local Agency Formation Commission has declared the general area to be in the City's sphere of influence with at least portions subject to annexation.

3. J. Arthur Younger Freeway. Younger Freeway between El Camino and its westerly terminus, the Junipero Serra Freeway, offers a scenic ride with excellent views of the Bay, San Mateo, and San Francisco when traveling east, and the College of San Mateo, nearby wooded hillside, and the Skyline Ridge when traveling west. Landscaping is extensive in the vicinity of the Alameda, indicating that a well-landscaped freeway can be attractive.

4. Alameda de las Pulgas. This street is rather unusual in the sense that it is an arterial street traveling through almost exclusively residential areas. The Alameda parallels El Camino a few blocks to the west. At one time it was a bypass when El Camino was flooded.

-- PROPOSED CITY ROUTE
— OTHER PROPOSED ROUTES

SCENIC HIGHWAYS

4. Sign control. Sign restrictions pertain mostly to the control of outdoor advertising, such as billboards and the placement and size of signs attached to buildings.

5. Landscaping and design control. The type of landscaping proposed for a project should conform with existing landscaping or natural vegetation. As much as possible the disruption of existing trees and natural vegetation should be avoided. The height and overall appearance of a proposed project should be in conformance with others in the scenic corridor and should not deter from the roadway's scenic value in and around the corridor. A community design plan would establish policies that would be very helpful to the decision making bodies of the City.

6. Grading control. The control of grading would serve two purposes: 1) protection from landslides and mudslides and 2) preservation of the natural topography. The development of a slope district limiting proposed projects to slopes of certain angles measured in degrees would be the tool for implementation.

7. City entrances. A driver traveling along the Peninsula has difficulty in differentiating one city from another. Through a scenic roadway program San Mateo could improve its entryways, thereby distinguishing it from neighboring cities.

8. Bike and equestrian paths. A scenic roadway should not be for motorists only. With the increasing interest in bicycling and horseback riding, some of the identified scenic roadways should incorporate bike paths and equestrian trails. The California Department of Transportation, identifies the Alameda as a potential bikeway and the upgrading of East Third Avenue could easily accommodate such an amenity.

2. HISTORICAL AND CULTURAL

A. Background

The City of San Mateo is both the oldest and the largest City in San Mateo County. From its humble beginning as a resting point between San Francisco and San Jose, the City has developed into a center for administrative and medical offices, retail trade, education, and religion.

The history of San Mateo may be divided into several eras: discovery, Mission days, rancheros, great estates, and urbanization. Each of these eras played a significant part in shaping the City. While sites dating back to the Costanoan Indian and Mission times have been discovered, most are not visible and few artifacts remain.

During the period of Mexican rule, the entire Peninsula was divided into extensive ranches. Portions of two ranches — Rancho de San Mateo and Rancho de last Pulgas — comprise the present City of San Mateo. Eventually the Mexican owners sold their land to wealthy San Francisco businessmen who established summer homes and farms in the "country" south of San Francisco. In this manner the era of great estates began.

After the railroad between San Francisco and San Jose was completed in 1863, Polhemus filed the first town plat which covered approximately 16 blocks around the depot (see Figure 8). The railroad made the elaborate country estates feasible and many wealthy families moved into the area. The Howards, the Parrotts, the Haywards, and others supplied the growing town with much of its economic life. Townspeople found employment by providing goods and performing services for the estate holders. By the turn of the century, however, most of the great estates ceased to be viable and their many acres were subdivided into tract homes. The 1906 San Francisco earthquake drove many people down the Peninsula, thereby augmenting the City's development.

Following World War II, the City entered a period of rapid urbanization. Numerous annexations occurred and the population increased spectacularly. Physical and economic development accelerated steadily and only now, as the City matures, has the pace begun to relax slightly.

Due to its central location, the City of San Mateo is the hub of a great deal of cultural activity. Although politically important, City boundaries mean little to those engaged in the creation and/or appreciation of the arts. Cultured offerings throughout the County are accessible to San Mateo City residents and many countywide organizations have headquarters in San Mateo, such as the San Mateo County Arts Council and the San Mateo County Historical Museum.

B. Existing conditions (see Figure 9)

State historical landmarks. Two State Historical Landmarks are located in the City of San Mateo. In March, 1776, Father Pedro Font, Chaplain of the Anza Expedition, names San Mateo Creek. Anza campsite, adjacent to the Creek at Arroyo Court, is a designated Historical Landmark (map reference H-3). A second Historical Landmark is the site of "The Hospice," which was the farming outpost of Mission Dolores. This site, identified by a DAR plaque, is at the southwest corner of Baywood and El Camino Real (map reference H-4).

Other officially recognized sites. In addition to the two State Historical Landmarks, there exists numerous other historical sites that have received official recognition. *by who??*

1. San Mateo House site. Two plaques, located on the public garage at Second and El Camino Real, commemorate the location of the hotel that served the Butterfield Overland Mail stages. Built in 1851 as the first business structure in San Mateo, it was demolished in 1964.

2. Armitage Orphanage site. The California Casualty property on the Alameda contains a site recognized and preserved as a local historical landmark. It was here in 1864 that the San Mateo Institute, a "Boarding School for Young Ladies," opened. Later known variously as Laurel Hall, San Mateo Female Seminary, Laurel Hall Seminary, and Laurel Hall Institute, the facilities became Laurel Hall College in 1887, a private boy's school, and Laurel Hall Academy in 1890. In 1891 the original buildings were used as the premises of the Bishop Armitage Orphanage. The remaining cornerstone is from a building presented by Charles Templeton Crocker and his sister in 1905 (map reference, H-1).

Surveyed by *Wm. J. Lewis*. C.E. September 1882.

SCALE.

FIGURE 8



FIGURE 9

OFFICIAL MAP
THE CITY OF
SAN MATEO
CALIFORNIA

3. Bell guideposts. Stretching from Mission Dolores in San Francisco to Mission San Diego along El Camino Real, the King's Highway, bell guideposts can be found. They are considered emblematic of the work and the intent of the founders of the missions. Each bell is made of iron, weighs 100 pounds, and rises 11 feet above the ground. It is customary for each bell to have plaque bearing an explanation of its purpose and two dates: 1769, the founding of the first mission and 1906, the erection of the first memorial bell. The City of San Mateo contains five bell guideposts (map reference H-2):

El Camino Real and Clark Drive (island)
El Camino Real and Baldwin Avenue by St. Matthew's Episcopal
El Camino Real and Third Avenue by Bank of America
El Camino Real between Hayward and Tenth Avenues
El Camino Real and 31st Avenue by Hillsdale Center sign

4. Estates. Men and events from the era of great estates made the most lasting imprint on San Mateo. Although the lands of the original estates are now many smaller homesteads, the influence of the wealthy landowners has been a pervasive one. They were largely responsible for shaping the growing City physically, economically, and culturally (map reference E-1 through E-5). A description of each estate can be found in the Technical Supplement.

Churches. Forty-four churches of various denominations exist in the City of San Mateo. Several are of cultural interest and two are of significant historical merit.

1. St. Matthew's Episcopal. St. Matthew's Episcopal was the first church building in San Mateo. The El Camino Real and Baldwin plot was donated by the Howard Family and the cornerstone laid in 1865 (map reference CH-1). After the 1906 earthquake, a new building designed by Willis Park, was erected on the same site. The present stone structure is reminiscent of a Gothic-styled village church. William Davis Merry Howard's tomb is located within the church.

2. St. Matthew's Roman Church. The first Catholic church in the City was dedicated in 1875 by Archbishop Alemany. It stood on land donated by Polhemus across Third Avenue from the present buildings. In 1899 a more permanent church was built on the corner of Third and South Ellsworth (map reference CH-2). This brick basilica, with dentil molding and narrow rounded windows, is capped by a square tower with Tuscan arches. The style is Roman Renaissance Revival, a style rarely seen west of the Mississippi. An iron bell was cast in 1861 in the San Francisco iron foundry of Peter Donahue's Union Iron Works. It later cracked and has since been donated to the County Historical Association.

St. John's Cemetery. St. John's Cemetery on Oregon Avenue was founded by John Parrott's widow (map reference V-1). On the agreement donating the land to the Catholic Church, Mrs. Parrot specified how the burial ground was to be laid out. One acre was set aside for the Parrot Family tomb, which was built in 1885. Every March 29, the anniversary of his death, a memorial mass is said for John Parrot in the Roman Renaissance Chapel.

Central Park. In 1922 the City purchased the 16 acre Kohl estate for use as a park. Located in the park is an iron dog sculpture, one of two that previously marked the entry of the Kohl estate. The stone and iron fence which borders the park was built by Captain Kohl in 1874 (map reference V-2).

Japanese Garden. San Mateo's magnificent Japanese Garden is the result of over two years of planning and hard work by dedicated local residents, particularly those of Japanese ancestry. Dedicated in 1966, the garden was designed by Nagao Sakurai, former landscape architect at the Imperial Palace in Tokyo. In 1968 the Tea House was dedicated. Garden enthusiasts proudly claim that San Mateo's Japanese Garden is the most authentic in the State. (map reference C-3).

Mills Hospital. Mills Hospital was founded in the early 1900's by Mrs. Elizabeth Reid, daughter of Darius Ogden Mills, as a memorial to her father. D. O. Mills, for whom Millbrae is named, and William C. Ralston opened the Bank of California in 1856. Originally known as the Red Cross Hospital, the name of the hospital was changed during World War I to avoid confusion. Little remains of the original structure (map reference V-3).

Coyote Point. Formerly an island separated by 0.3 miles of marsh, Coyote Point is now attached to the mainland (map reference V-4). It is believed that the name was derived from Cayetano Arenas, the original owner of the Mexican land grant Rancho de San Mateo. For many years the land was owned by the Howard Family, and Howard was responsible for filling in the marsh and having the area planted with Eucalyptus, Cypress, and Pine trees. A portion of Coyote Point, then under Federal ownership, was leased by the College of San Mateo in 1947. It was one of three campus sites used by the College of San Mateo for several years until the present campus was built.

Bank of America. Located at 300 S. El Camino Real is the Amadeo P. Giannini Memorial Branch of the Bank of America (map reference C-1). On the facade are mosaic murals by painter Louis Macouillard and mosaic master Alphonso Pardenas which depict the history of California along with that of Giannini and the Bank of America. Completed in 1963, the five 25 feet tall murals form the second largest mosaic in the United States. Only the Stanford Chapel mosaic is larger.

Junipero Serra Statue. A redwood bust of Father Serra was placed on the Aragon Circle street island in 1969 by The San Mateo Club of Serra International, a Catholic organization (map reference C-2). Carved by sculptor Kenyon Kaiser, the work commemorates the contribution of Father Serra and the other Spanish padres to the development of California. It is reported to be one of the few Serra statues in the state and the only redwood-sculpture Serra Memorial in the United States.

Hillsdale shopping center. Constructed in stages between 1954 and 1967, the Hillsdale Shopping Center was the first center of its type on the Peninsula. Designed by Welton Beckett and Associates, the major portion of the center is built around an internal pedestrian mall. The Hillsdale development was a pioneer in the use of landscaped pedestrian mall, and many statues by the late sculptor Benjamin Bufano are permanently displayed here (map reference A-1).

Woodlake residential community. The Woodlake Apartments, built in 1965, represents one of the first and still one of the best Planned Unit Developments in the Bay Region. The large nearly 1,000 unit complex was designed by Worster, Bernardi and Emmons with Lawrence Halprin serving as landscape architect (map reference A-2).

Houses. Numerous Victorian-style houses are found in the older areas of the City of San Mateo. They represent a distinct era in the architectural development of the community. North Claremont and North Delaware, between Monte Diablo and San Mateo Creek, is an especially important area in this regard and could be viewed as an historic district (map reference A-3). Several homes throughout the City have been singled out as architecturally important.

1. 2 North Delaware (1892). A board and shingle Queen Anne house with a tower, fishscale shingles, and Eastlake carving (map reference A-4).
2. 353 North Claremont (1895). Fishscale shingles, Eastlake brace, and detailed carving distinguish this Victorian cottage (map reference A-5).
3. 343 Highland (1880's). This wood house is late Greek Revival - early Victorian in style (map reference A-6).
4. 137 Elm (c. 1890). An unusual roofline, a fan set in the gable, and fishscale shingles are highlights of this two-story late Victorian whose original barn is still in the rear (map reference A-7).
5. 809 Lawrence (c. 1900). Of late Victorian persuasion, this wood house boasts a bracketed roof cornice, three-sided window bay, and windows (all double) with either arched or rounded moldings (map reference A-8).
6. 615 Hurlingham (c. 1906). This two-story Colonial Revival house has classical embellishments, including a dentiled cornice, columned porch, and unique window treatment on the first floor (map reference A-9).

C. Problems and issues

San Mateo has some buildings, sites, and neighborhoods of particular interest or significance. Such areas contribute to the variety and vitality of the urban scene. They form an important part of the community's historic and cultural heritage which, if lost, cannot be replaced. This does not mean that any building must be saved simply because it is old nor that any site be maintained because it was once associated with some historic event. It does mean that the City, after making a thorough inventory of its resources, should take the necessary steps to preserve those buildings, sites, and areas that are found to contribute significantly to its physical and cultural heritage. What is only of "cultural" interest today may be of "historic" interest tomorrow. The story of a city is a story of continuity, growth, and change spanning various eras; it should not be considered as the story of a single isolated period.

The historical and cultural interest of the buildings and sites discussed under existing conditions are well acknowledged. There exists in the City of San Mateo, however, a second group of points of interest. In the second group can be found items which are not as well-known but which merit consideration when discussing the historical and cultural assets of the community. The list of sites mentioned here is not meant to be all-inclusive. At all times it is subject to reevaluation, additions, and deletions.

1. Seven Oaks - home of A. P. Giannini, founder of the Bank of America, 20 El Cerrito.

2. Gothic revival home with rare double gable, 40 Barneson (built in 1886).
3. Kirkbride home - home of C. N. Kirkbride; co-founder of the San Mateo Leader, the City's first paper, and first City Attorney; 360 Elm Street.
4. Victorian home on South Delaware - architecturally distinctive and not in the general area of other Victorian homes, possibly the oldest building in the City (built in 1874), 45 South Delaware.
5. Notre Dame Avenue - historically significant; from El Camino Real to Alameda de las Pulgas.
6. The Sentinal Redwoods - site of the twin log cabins, Boy Scout and Girl Scout; 300 block of Ellsworth Avenue.
7. Congregational Church - historically significant; Ellsworth and Tilton Avenues.
8. Roman Catholic Church - historically and architecturally significant; Third Avenue.

Determining significance of a site and evaluating the feasibility of preservation is a complex matter. Historic, architectural, and cultural considerations are used in singling out the more significant sites. Once sites are specified, setting, uses, and cost considerations form the major preservation issues. Setting considerations such as visibility, accessibility and neighborhood importance, and the proximity of detrimental influences must be reviewed. Whether or not the site can be retained in its original or present use, or whether it is adaptable to other productive uses needs to be considered. Lastly, economic feasibility requires evaluation. Inventories of sites and analysis of their significance and preservation feasibility should remain open-ended so that new information and evaluations may be added.

D. Possible alternative solutions

Various tools are available for carrying out a program to conserve historical and cultural resources. Some are alternative methods, as in different approaches to zoning; some methods can be complementary, such as combining the techniques of zoning, renewal, and acquisition.

Both public and private resources must be utilized to successfully carry out a comprehensive program to conserve the community's historical and cultural heritage.

1. Public options

a. Zoning. When properly applied, conventional zoning can offer some protection to historic areas. Matters normally covered in the Zoning Ordinance do influence the character of an area. Conventional zoning, however, could not prevent an owner from making alterations, replacements, or additions which would destroy the historic and/or architectural integrity of the site.

b. Flexible historical and cultural zoning. In a City like San Mateo, with a scarce and scattered historical and cultural heritage, flexibility in controls and public policy commitment are important to the success of any preservation program. Policy commitment can be achieved by the adoption of a zoning ordinance amendment which establishes the basic framework for designation of historic areas, standards for development and architectural controls, and a structure for administering these controls within historic districts. Such a "policy amendment" can provide a flexible framework within which potential historic districts can be reviewed.

c. Scenic easements. A scenic easement may be another tool for public control. It is a device that allows preservation of the public interest in the appearance of the building without substantially affecting the use of the property. The purpose is to prevent detrimental exterior alterations by acquiring an easement over the facade of the building, which does not allow the owner to alter the exterior appearance of the building without approval from a designated public agency. An advantage of the easement approach is that the building continues in productive private use. A disadvantage is that there is no protection against detrimental environmental influences from adjacent properties.

d. Urban renewal. A large number of the architecturally and historically important structures are found in the older central portions of San Mateo. This area has become subject to deterioration and possible urban renewal treatment. Through urban renewal, blighting conditions in the vicinity can be removed. New uses can be returned to old areas and new construction can be related to old construction through appropriate aesthetic controls within renewal project areas. The Victorian homes in the vicinity of Claremont and Delaware could be retained and upgraded through urban renewal procedures.

e. Tax incentives. Some form of tax incentive is a possible device to encourage rehabilitation and preservation. Such incentives could take numerous forms: assessment or rate reduction, rate freeze, refund, and so on. The basic idea is to encourage the owner to restore and preserve the building by offsetting some of his improvement expenses with some type of tax relief.

f. Direct acquisition for public use. A public option to preserve selected important buildings and sites is direct acquisition, either by purchase or by condemnation. This should be considered when a significant site becomes available in a location appropriate to the performance of a public function or when this is the only chance remaining to save a truly outstanding resource.

2. Private options

a. Acquisition for private use. Private sources can assist in finding appropriate re-uses for structures within any zoning restrictions that prevail. Possible uses abound and only require a little ingenuity.

b. Restrictive covenants. Restrictive covenants may be used to preserve certain characteristics of an area. The covenant runs with the land and binds owners and their successors to particular practices with respect to their property.

3. URBAN FORM

A. Background

Much of what makes San Mateo a desirable place to live and work in has to do with the shape and form of the City. The physical setting of the land and the manmade cityscape include characteristics which people desire in a quality living environment. The precise factors and their value which makes San Mateo a more desirable place than another are difficult to isolate, though important human needs which the community must supply to a greater or lesser degree include privacy, personal convenience, safety, sense of choice, and quality.

B. Existing situation

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A principal function of any City is the provision of services and maintenance of regulations which allow residents the necessary sense of privacy, choice, safety, quality, and convenience. The discussion of this section is limited to the way in which City regulations affect the physical component of the community; and ways in which physical features contribute to human needs.

The personal sense of privacy, choice, and so on can be distinguished in terms of their manifestation as expressed in development of the City. The principal areas are building design, relationships between buildings and land uses, and amount and quality of City services.

1. Building design. While it does not state the intent beyond the general purpose, the Zoning Code attempts to provide for the privacy of residents and their compatible existence with neighbors and differing land uses. Minimum lot area and yard requirements result in the separation of buildings and sufficient open space to be usable by residents of dwellings.

In one apartment zone a specific open space requirement demands that usable open space be provided for the dwelling units. Other regulations of the Code intend to produce open space by reducing building coverage of the ground and by again providing usable open space. Performance standards require that potential nuisances such as noise be maintained on acceptable levels, lest adjacent residents or users of lands be inconvenienced.

The general review process in approving projects for development intends to ensure a high quality of development. Planned Development regulations give an applicant certain advantages if an application is pursued under its procedures. In return, a project must provide open space and is subject to detailed review to ensure that the features significant to the Planned Development regulations are provided.

The most recent regulations for executive zones contain a series of points which can be used by a builder to increase the scope of the project, if at the same time the project offers one or more of several desirable amenities. These bonus features aim more at improved aesthetics and relationships between projects than at individual's privacy.

The purpose of the Subdivision and Site Development Code is the preservation of slopes and vegetation; both important to achieving privacy and safety as well as good relationships between structures.

2. Relationships. The City's zoning regulations aim at establishing compatible development in two ways. In one instance the Zoning Code separates uses to avoid incompatibility and create a reasonably structured land use pattern. In the second case the Code attempts to create desirable relationships where differing or the same or similar uses adjoin. Setbacks buffers, zoning transitions, etc. are tools the purpose of which is the harmonious coexistence of a multitude of structures and uses. Landscaping and tree preservation become an important factor.

3. City services. Two services of the City have a major impact on the physical aspects of the community—streets, including street trees, and parks.

Streets consume a surprisingly large amount of any developed area. It is not unusual to find 25% of land devoted to rights-of-way in residential areas. In commercial areas, streets and related parking facilities can include a much greater percentage of land.

The width of a street and its layout, street surface, and related landscaping, sidewalks, and lighting, have a major impact on the quality of an area. Residential streets wider than required for local traffic create asphalted space of little value. Streets without landscaping can be unattractive while tree-lined streets may be enjoyable.

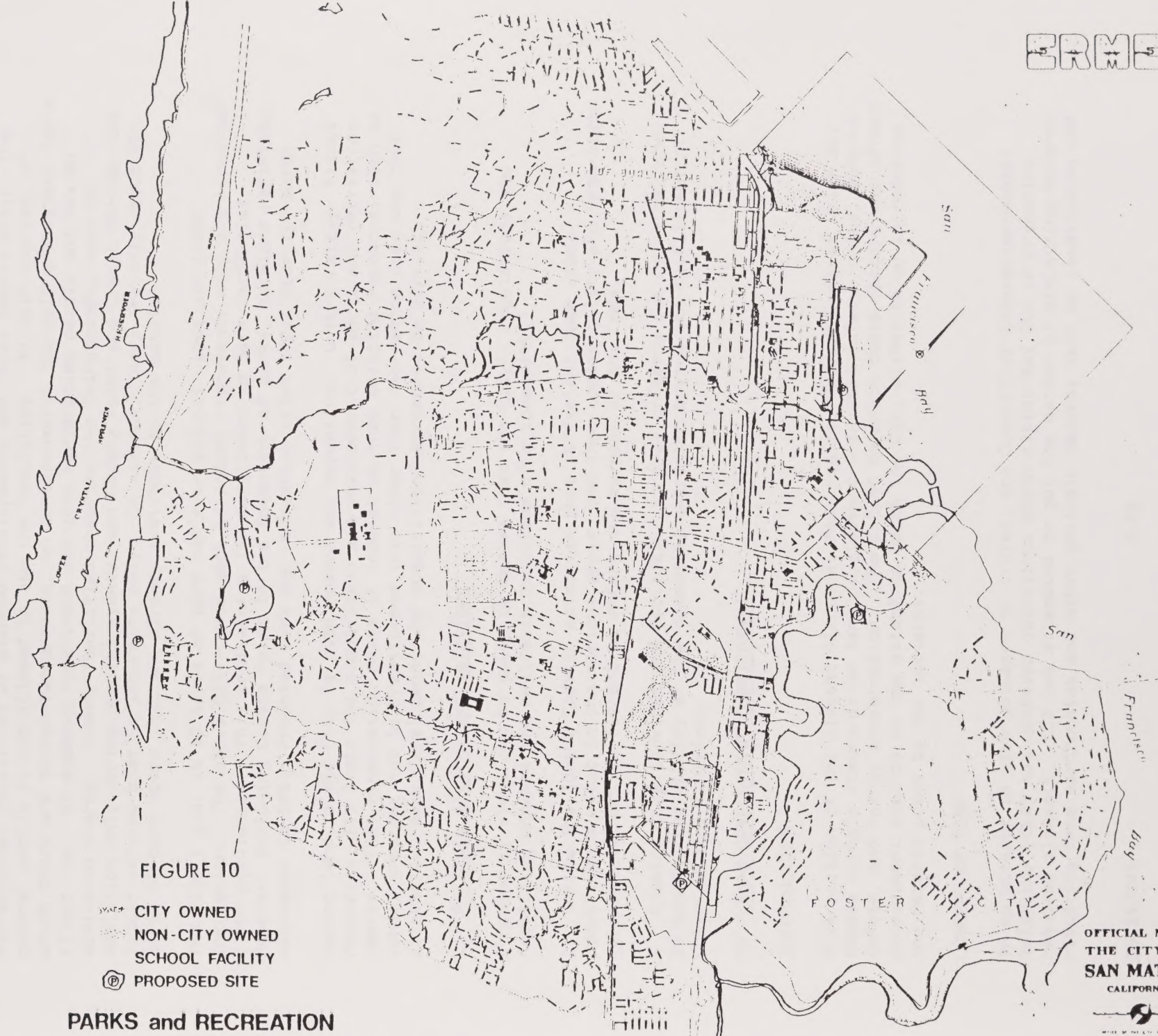
Parks provide not only areas for recreational activity, they also tend to break up the asphalt and concrete developments that surround them. Furthermore, the more natural park areas provide habitat for wildlife.

San Mateo has some rather unique recreational facilities not often found in urban cities, albeit all are not City owned. Coyote Marina, presently under expansion, the Bay Meadows race track, the San Mateo County Fairgrounds, and the three golf courses, (San Mateo Municipal Golf Course, Bay Meadows, and Peninsula Golf and Country Club) offer recreation that is not commonly found in most parts of the Bay area. These facilities attract people from outside the City, vis-a-vis local parks that generally attract City residents only.

Park and recreation facilities within and around San Mateo fall under three major categories: 1) City owned park and recreational facilities; 2) school facilities; and 3) non-City owned park and recreational facilities, such as planned developments, golf courses, and county facilities (Figure 10). City owned parks comprise three types: 1) neighborhood parks ranging in size from 1-12 acres; 2) community parks, 10-30 acres; and 3) citywide parks over 30 acres. The City has 204.7 acres of park space that generally meets this criteria. The breakdown is as follows: neighborhood, 60-7 acres; community, 62 acres; and citywide, 82 acres. The figures recognize 25% of Marina Lagoon as recreational value. The Technical Supplement identifies adopted park standards.

School facilities total 166 acres; recreational facilities in planned developments, 128 acres; and County facilities, 228 acres; totalling 695 acres. Add to this the 204.7 acres of City owned facilities plus the 103 acre San Mateo Municipal Golf Course.

In total, 1,002 acres of park and recreation facilities exist in and near the City limits. However, this figure is deceiving for the following reasons: 1) The above figure for City owned facilities does not reflect the actual



serviceability of the facilities. Approximately 40% of existing parks are either undeveloped or are in need of major improvements. 2) Recreation spaces at schools are also not totally adequate and would require some upgrading a facilities before they would be fully serviceable. Schools and other recreational areas are not totally open to the public as are City parks. 3) Recreational facilities of planned developments and their guests only. The general public is not allowed to use the facilities. 4) Golf courses, of which there are three—two private, on public—serve the golf enthusiast for a slight fee. By meadows race track attracts horseracing people and has an admission charge. County facilities comprise the fairgrounds, open by admission only during special events, and Coyote Point and Coyote Marina—the latter serving boating interests only. In essence, there are only about 204 acres of park space that are already available to the public.

The City's goal is 10 acres of park and recreational space per 1,000 population. The above City-owned park inventory represents only 2.6 acres per 1,000 population. This indicates a 74% deficiency in park facilities. However, including Coyote Point in the inventory of parks, parkland deficiency decreases to 56%. Proposed park and recreation sites total over 200 acres.

Vacant land in the City is both scarce and expensive. Unfortunately, fiscal resources will limit the acquisition and development of parks and recreation spaces. This combination makes it imperative that existing resources such as school grounds, not be transformed into other than recreation uses and that alternative park development and acquisition approaches be pursued.

C. Possible alternative solutions

A number of steps can be taken to ensure that the City's regulations and facilities enhance the desirable qualities of a community:

1. Review the Zoning Code to establish that sufficient open space requirements exist in the various zones, and that compatibility and transition requirements are sufficient to effect the purpose of the Code.
2. Examine City services and facilities so that criteria can be established to enhance the quality of the community character beyond the fulfillment of their primary functions.

IV. URBAN DEVELOPMENT CONSTRAINTS

INTRODUCTION

This section of the Element discusses four topics, the subjects of which may impose certain standards on land development — seismic safety, noise, general safety, and energy conservation. The extent to which these factors may affect development depends on the extent to which the City wishes to go in reducing the hazards posed by the subjects.

CONCEPT OF RISK

In an attempt to give guidance to cities, the Council of Intergovernmental Relations (CIR) has composed guidelines which cities may use in preparing required elements. CIR has attempted to put the matter of minimizing hazards resulting from earthquakes and other geologic hazards such as landsliding and

flooding in the concept of "acceptable risk." While this concept seems somewhat abstract, it is one which is frequently used implicitly, and is useful for rational analysis of possible programs. It applies naturally to seismic and general safety and can be applied to noise and energy is excessive noise or waste of energy is considered a "hazard."

The concept of acceptable risk is defined by CIR as the level of risk below which no specific action by local government is deemed necessary, (other than making the risk known and suggesting remedial measures for the public to take if they desire on their own to lessen the risk). In more general terms the concept means that local government must come to a conclusion concerning the efforts which should be made to reduce a certain hazard. The extent of the effort is typically measured by the expenditure of public funds. By way of local example, San Mateo has for years had an established level of risk as far as flooding from heavy rains is concerned. This level does not allow for periodic flooding of areas in the City. The City has by its actions indicated that the acceptable level of risk (of flooding) is extremely low. The City has been willing to take the action of dredging the lagoon, improvement of drainage channels, installation of pumps, etc. and incur the expense of sometimes large amounts of money, to achieve this low level of risk. While this City program does not preclude flooding during the "100 year storm," it definitely lessens that hazard and avoids hazards of storms of lesser intensity.

A similar approach can be taken concerning earthquake hazards. While it cannot be determined when and where an earthquake will occur, or its intensity, there are many actions which a City can implement to reduce the damage when it occurs, and to allow for rapid recovery. It is the purpose of the ERME to sort out the various options open to San Mateo and begin to determine what costs the City is willing to incur to reduce earthquake and other geologic hazards.

Public Role

A local government's responsibility in determining acceptable risk is significant. City government is the general governmental unit most directly involved with the welfare of its citizens. Typically residents of a community assume that the local government is safeguarding people's lives and property. Individuals make many decisions concerning risks knowing the dangers and the reward. The proverbial example is the automobile. Individuals make a decision daily to drive their cars of necessity or for pleasure and risk the small danger of being involved in an accident. But this example points out the role of collective action based on acceptable ground rules. Similarly, local government has a role in minimizing seismic and geologic hazards. The probability of hazards, the specific hazards, and mitigating measures are not typically the subject matter with which individuals deal every day. It is the kind of concern one typically leaves to one's local government.

While it could be argued that individuals could make their choices based on their own determination of acceptable risk is only they had full knowledge of the hazards, this alone does not appear to be a practical solution. The risks as described in the safety, seismic safety, noise, and energy sections are those which must be responded to collectively, via government levels.

1. SEISMIC SAFETY

A. Background

The Seismic Safety section of the ERME is designed to incorporate a consideration of seismic hazards into the development of San Mateo. The basic objective is to reduce loss of life, injuries, damage to property, and economic and social dislocations resulting from future earthquakes. Consistent with State Law, this section deals with an identification and appraisal of seismic hazards, such as susceptibility to surface ruptures from faulting, to ground shaking, ground failures, and to effects of seismically induced waves, such as tsunamis and seiches.

In addition to the above, this section includes an appraisal of mudslides, landslides, and slope stability as geologic hazards that must be considered with other hazards such as possible surface ruptures from faulting, ground shaking, ground failure, and seismically induced waves.

Seismicity. The San Francisco Peninsula has a long history of earthquake activity. Evidence indicates that for millions of years before man's arrival here, large scale earthquakes have shaken this area. While efforts are underway to develop methods for forecasting seismic activity, at the present time the only basis for predicting the frequency and magnitude of future earthquakes are the historical accounts of recent seismic activity. Earthquake frequency predictions based on such a short period of geologic time should be considered very approximate and may be used only to obtain a feel for the seismicity of an area.

The City of San Mateo lies immediately adjacent to and east of the San Andreas fault. In the Peninsula area, the San Andreas fault tends to produce relatively infrequent, but severe earthquakes. Another major fault affecting San Mateo is the Hayward fault. Although this fault lies 15 miles to the east of San Mateo, a major earthquake centered in the Hayward area could cause substantial damage in San Mateo.

Historic movements on the San Andreas and Hayward faults indicate that San Mateo can expect a maximum intensity earthquake (Mercalli X or greater), once every 100 years and a damaging earthquake (Mercalli VI or greater) 3-4 times per century. For a description of the Mercalli scale, see the Technical Supplement. The importance of these frequency estimates suggests that the great majority of structures within San Mateo today will most probably be subjected to an earthquake capable of causing substantial damage.

B. Seismically induced geologic hazards

Major earthquakes generate a wide variety of damaging events all of which effect San Mateo to a greater or lesser degree. A great deal of the loss of life and property damage generally associated with earthquakes is available when the nature of the hazard is understood and proper engineering and land use techniques are applied. It is therefore, the intent of this section to identify and evaluate the nature and extent of natural seismic hazards in San Mateo.

Hazard evaluation. The evaluation of earthquake related hazards requires an examination of the following questions:

1. How often will earthquakes occur?
2. How large will they be?
3. What effects will they have?
4. What mitigating measures are available and what is their expected cost?

The specific natural earthquake hazards affecting San Mateo are as follows:

1. Ground shaking
2. Ground failure, i.e., liquefaction, lurch cracking, lateral spreading, landsliding, and differential settlement.
3. Flooding due to dam or dike failure.
4. Flooding due to tsunamis or seiches.
5. Ground rupture due to faulting.

The degree of hazard presented by the above is strongly related to the strength and thickness of the various earth and bedrock materials which underlie the City. The Technical Supplement contains background information on the geologic history and setting of San Mateo.

Susceptibility to surface rupture by faulting. Review of existing U.S. Geologic Survey and California Division of Mines and Geology maps indicates that there are no known active faults traversing San Mateo. However, this does not exclude the possibility that active faults do exist within the City. Large earthquakes are frequently accompanied by minor movements on smaller faults in sympathy with the main fault movement. These minor offsets are nearly impossible to predict and therefore constitute an unappraisable hazard. Future earthquakes and geological studies may reveal such faulting, thus enabling a more complete evaluation of the hazard.

C. Geologic zones

The geology of a region strongly effects the type and magnitude of seismic hazards. San Mateo can be divided into three generalized areas based on its geology. Figure 11 delineates these generalized areas referred to here as the bayland area, the central alluvial area, and the bedrock area.

1. The baylands area. Throughout the eastern portions of San Mateo, land fill is underlain by varying thicknesses of compressible, low strength by muds. Beneath the bay muds a thick layer of alluvial deposits is found. The alluvial deposits are in turn underlain by bedrock. This geologic profile has a substantial history of poor performance during seismic events. In order to precisely predict how a bay muds land fill area will react during an earthquake, a great deal of specific information is needed. This type of information is not currently available for the San Mateo area. However, existing data does allow for some generalized statements as to how the eastern bay muds area would probably react in a major earthquake. As additional information becomes available, a more specific evaluation will be possible. Seismic hazards active within this area are discussed below.

Ground shaking: Saturated alluvial and bay mud deposits tend to amplify earthquake waves. Because of this, earthquake induces ground shaking in San Mateo's reclaimed baylands will tend to be more severe than in other areas of

GEOLOGIC ZONES

the City. Within the baylands area considerable variation in shaking intensity can be expected. The factors affecting these variations are the following:

1. The thickness of bay mud and other unconsolidated alluvial materials.
2. The frequency content and magnitude of the arriving earthquake waves.
3. The shape of the underlying bedrock surface.

The result of ground shaking in the baylands is that tall flexible structures will be shaken more severely than one- and two-story rigid structures. In this respect, San Mateo is fortunate as most of the current development within the baylands area consists of low density one- and two-story rigid frame structures.

Ground failure: Earthquake shaking causes ground failure through two basic mechanisms:

1. Liquefaction and resulting differential settlement and loss of soil bearing capacity.
2. Lurch cracking and lateral spreading resulting in failure through differential settlement.

Existing information indicates that the baylands area would probably not experience large scale liquefaction. But localized sand and silt layers within bay muds may liquefy causing ground failure and differential settlement. Lateral spreading of cohesive fine grained sediments and lurch cracking are probable modes of failure especially where a direction for expansion is provided by the free face of a creek or slough.

Flooding: The baylands area is subject to seismically triggered flooding from four sources: 1) dike failure, 2) tsunamis, 3) seiches, and 4) dam failure. None of these sources is likely to cause flooding in excess of five feet of water. The long shallow stretch of bay water lying to the east of San Mateo provides considerable protection against flooding due to tsunamis or seiches as long as bayfront dikes remain intact. A dike failure would expose a large portion of the baylands area to tidal action flooding. In addition, if a tsunami or seiche were to strike after a dike failure, the scope of flooding would be temporarily increased.

Insufficient information is available at this time to assess the probability of the Crystal Springs Dam or the San Andreas Dam failings. However, the Division of Dam Safety of the State of California is in the process of studying all dams throughout the State for their susceptibility to failure during seismic activity.

2. The central alluvial area. The central alluvial area of San Mateo consists of an elongated strip of land whose irregular boundaries are approximated by the Southern Pacific Railroad tracks and the Alameda de last Pulgas (see Figure 11). Within this area alluvial and colluvial sediments overlie bedrock in thicknesses which increase generally from west to east. It is important to note that this area contains a majority of San Mateo's high occupancy commercial, health care, educational, and residential structures. The specific seismic hazards active within the central alluvial area are:

1. Ground shaking.
2. Flooding due to dam failure.
3. Ground failure.

Ground shaking: Within the central alluvial area the most widespread affect of an earthquake will be ground shaking. The presence of various thicknesses of alluvial soils is likely to cause selective amplification of earthquake waves (see Figure 12). Structures of all types, if inadequately constructed or designed to withstand the shaking forces, may suffer damage or collapse. Estimates of the dollar value of damage to woodframe structures as a result of ground shaking alone are as high as 5% of the dollar value exposed. It is probable that within the central alluvial area damage caused by ground shaking will exceed all other direct earthquake damage by a factor of 10 or more.

Flooding: Seismically triggered flooding within the central alluvial area is restricted in cause to the failure of man-made water-retaining structures. Crystal Springs Dam, San Andreas Dam, and Laurel Creek Dam are the principle structures capable of causing flooding. The potential flood plains for total failure of Crystal Springs and San Andreas Dams are shown in the Technical Supplement. The location, design, and use of Laurel Creek Dam virtually eliminates it as a seismic hazard.

Ground failure: Most of the sub-surface materials in the Central alluvial area are dense gravels, sands, silts, and clays. The highly consolidated nature of these materials serves to greatly increase their strength thus reducing the hazard of ground failure. However, the processes involved in the various seismic ground failure mechanisms are complex and the possibility of such a failure occurring in saturated alluvium can never be totally discounted. Thus, soils and geologic investigations should address the problem of ground failure whenever saturated, loosely or moderately consolidated alluvial soils are encountered.

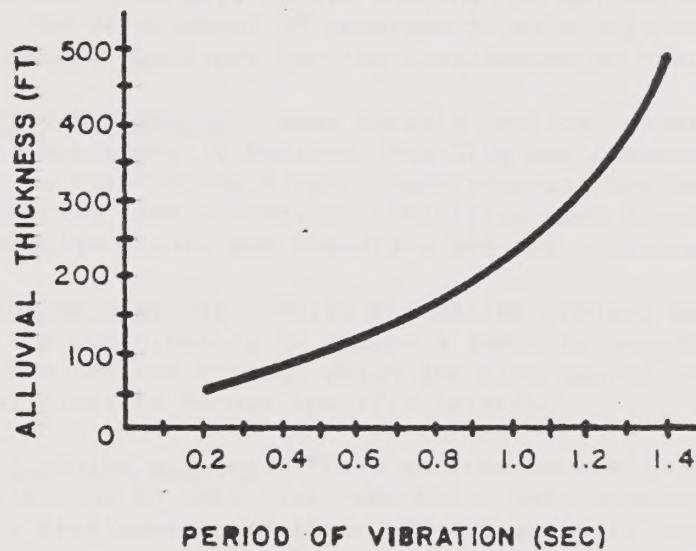
3. Bedrock area. The western hills area contains those portions of San Mateo where bedrock lies within a few feet of the ground surface. It does not include those portions of western San Mateo where considerable thicknesses of alluvium or fill material has been placed in stream channels or valleys. Such areas are more correctly evaluated under the heading "Central Alluvial Area". The specific seismic hazards active within the western hills area are: 1) ground shaking, 2) ground failure due to landsliding, 3) ground rupture due to faulting.

Ground shaking. As in other areas of the City, ground shaking remains the principle source of potential earthquake damage. However, the bedrock materials of the western hills tend to react more favorably to seismic shaking than alluvial or bay mud deposits. Bedrock materials do not exhibit the tendency of alluvial and bay mud deposits to amplify earthquake waves. Thus, a condition of resonance is easily avoided for taller structures, conversely, one and two story rigid buildings may be subject to greater shaking damage, due to their short fundamental period of vibration. However, historical accounts of the 1906 San Francisco earthquake indicate that damage from shaking was generally less in the western hills than in the alluvial and bay mud areas even though the hills are closer to the causative fault.

Ground failure: Landsliding in the western hills area would probably account for less than 10% of the total damage incurred by San Mateo during a major

FIGURE 12

RELATIONSHIP BETWEEN DEPTH TO
BEDROCK AND EARTHQUAKE WAVE
AMPLIFICATION



SOURCE: Based on H. B. Seed and P. B. Schnabel, 1972, Soil and geologic effects on site response during earthquakes, in Proceedings of the International Conference on Microzonation for Safer Construction, p. 85.

earthquake. Most of the natural hillsides of western San Mateo are in relatively stable state. However, many of the altered regraded cut and fill slopes could undergo slippage during a seismic event, especially if the earthquake occurred during the wet winter months. The current design of cut and fill slopes does not generally take into account seismic loads. Thus, substantial failures in such slopes (especially where minor static slippage is already evident) seems probable.

D. Possible alternative solutions

1. Contingency emergency plans. Most effective and desirable is the preparation of contingency plans to deal with disasters such as an earthquake as they occur. The purpose is to minimize loss of life after a disaster and allow quick and effective recovery.

2. Increased knowledge of hazards. Programs to gain more information about the nature of the hazard as well as its meaning for particular sites or areas are necessary for the development of programs to eliminate hazards. This measure is a groundwork necessary for the development of these other programs.

3. Mitigating project measures. When certain physical hazards become evident, and their abatement is desired, the City may propose specific actions to be taken, such as reinforcing dikes. Such programs may be preventive or retroactively "curative" and effective. They also tend to affect specific areas where the problem occurs and therefore are not citywide in effect.

4. Mitigating program measures. While mitigating project measures are direct actions taken by the municipality to reduce a specific hazard, mitigating program measures are actions through which the City causes private owners to properties and buildings to reduce specific hazards.

5. Preventative planning actions. These actions generally deal with changes to codes and regulations to take risk reductions into account. They generally affect only future development and their effectiveness is long range.

2. STRUCTURAL HAZARDS

A. Background

The most usual and damaging occurrence during an earthquake is groundshaking. Vibrations in the ground are transmitted to structures which react to the shaking depending on the type of construction and soil condition.

How well a structure will withstand an earthquake depends on the severity of the shake and the building's construction and the soil upon which it is placed. Over the years, construction methods have changed to where seismic considerations are an important factor in building design.

B. San Mateo history

Different types of buildings have different resistance to earthquakes. In general, wood frame structures are considered among the safer types of buildings (although appendages such as improperly reinforced brick chimneys may be dangerous.) The types of structures which pose a special hazard in San Mateo are those built of masonry in the early years of the century—the early

commercial buildings (which are concentrated in a few areas). The reasons for their particular lack of safety are several. They were not reinforced and were designed to simply stand up, but not to take a lateral load. In other words, they were stable and solid because the supports (walls, columns) were well able to hold up any load placed upon them. The earthquake motion, however, has the effect of pushing a building from the side, i.e., lateral force. It was not until the 1930's that consideration of lateral forces were incorporated in building codes.

Another factor which aggravates the problem of old structures is that many were constructed with mortar which contained lime. A particular attribute of that mortar is that it disintegrates with age, so that many brick walls may have lost a considerable percentage of their strength.

The architectural design habits of the old days included many parapets and other appendages as well, which are susceptible to being shaken loose during an earthquake, thus adding another hazard to already hazardous structures.

The building which warrant the greatest concern were built prior to the mid-1930's. In 1933, largely as a result of the Long Beach earthquake, new building codes were written which included seismic considerations, such as lateral loading. Schools were called out as particularly significant and were required by the Field Act to be earthquake safe. New construction methods including lightweight but strong plywood also became available.

A significant factor in improving construction in the City became the expertise of the building department personnel. During the first two decades of this century, building inspector was only one of several hats the responsible individual may have worn. During the 1930's the pace of building increased and building inspection became a more important function. This trend continued into the 1940's and 1950's. Additional personnel were added to the Building Department during the later 1940's; major seismic considerations were incorporated in the 1943 Uniform Building Code (UBC). The Building Code became more sophisticated and building inspection personnel became more and more experienced in the enforcement of codes.

Another major change in construction occurred in the early 1960s when the modern high-rise building was introduced in San Mateo. The Bank of California building introduced this type of construction which has come into increasing use. The 1973 UBC subjects such construction to special requirements and it is likely that seismic safety will become an increasingly emphasized aspect of the Building Code.

C. Areas of concern

Because potentially unsafe structures were built around the same time, the problem is localized and relatively easily identified. An old map of the City gives an immediate clue about where to look. Downtown San Mateo includes the vast majority of these buildings. Lesser concentrations may be found along El Camino Real. Old masonry buildings are an exception elsewhere.

D. Possible program of solution

The problem of dangerous buildings is generally dealt with through a process which eliminates the hazard of dangerous buildings to a greater or lesser extent. The concept of "acceptable risk," discussed elsewhere in this element, is the basis for determining the extent of the program. In its simplest form, a dangerous building program would intend to remove dangerous parapets, cornices, and other projections and identify those structures which are totally unsafe. The model Dangerous Building Code developed by the International Conference of Building Officials, could provide the legal impetus to a dangerous building program. Such a program could be carried out by the Building Division of the Community Development Department. A building inspector with special expertise inspects designated sections of the City. A preliminary survey would indicate the dimension of the problem. The cursory overview would then be followed up by inspection of structures. The extent of the inspection depends upon the significance of the structure and on the deficiencies encountered. The first factor is important. It is more important to make a building safe when the building is one which has a high occupancy, than a building which has few occupants.

Following inspection and evaluation of a structure, the owner would be asked to make repairs to cause the structure to achieve an established safety level. Building inspection would follow the action through until compliance is reached or the nuisance is abated. The length of time which such a dangerous building program may take depends on the acceptable level of risk desired by the City and on the resources allocated to it.

2. NOISE

A. Background

Noise is a form of environmental pollution which can directly affect the quality of life. Historically, noise has been considered an unpleasant but inevitable part of urban growth and development; however, noise control measures are available to reduce or prevent high levels of noise exposure. They have proven successful in communities where there was governmental and citizen concern about the noise problem.

Noise can be most simply defined as unwanted sound. The degree of annoyance from sound is subjective. What might be music to one person may be irritating noise to another. The time of occurrence also affects the degree of annoyance. A dog barking at three o'clock in the afternoon is less annoying than one barking at three o'clock in the morning. The various noise impacts may include the following:

1. Psychological effects of annoyance, fear, interference with work, disruption of sleep and rest;
2. Physiological effects of hearing loss (temporary or permanent), aural pain, nausea, loss of muscular control, blurring of vision;
3. Social effects of interference with speech and communication; and
4. Economic effects of reducing property values and levels of productivity.

The noise section includes noise contours of estimated present and projected noise levels. A noise level is a measurement of sound pressure with a level expressed in decibels. When a sound level meter is used, sound pressure level

can be determined and expressed in decibels, (dB). In this case, the decibel is a logarithmic value which is referenced to the faintest sound pressure detectable by the human ear.

The decibel values, dB(A) or dBA, are for those sound levels measured using the A weighting network of a standardized sound level meter. The human ear can hear frequencies from about 20 to 20,000 cycles per second. But it cannot hear all pitches equally well. When modified by an A-weighting, the decibel value dBA corresponds more closely to how the human ear perceives the noise.

The noise contour is a line on a map passing through points where the same sound pressure level prevails. Contours form bands of varying width emanating from a noise source.

The noise exposure level, as used in this report, is generally a combination of a noise level in A-weighted decibels and a time duration for that noise level. For example, an "L90" designation indicates a sound pressure level that is exceeded 90% of the time. The "L90" designation is sometimes used to determine the ambient or background noise exposure level.

Because of their logarithmic nature, decibel units cannot be directly added or subtracted. Adding 50 dBA to 50 dBA does not give 100 dBA, rather it gives 53 dBA. Doubling the sound power always causes the decibels to increase by 3. For example, two identical cars make 3 dB more sound than one car; four identical cars make 6 dB more than one car; and eight identical cars make 9 dB more than one car.

People do not perceive noise in direct proportion to sound level. A 3 dBA change in sound level is just perceptible to an average person. A 5 dBA change in sound level is a clearly noticeable change in apparent loudness. A 10 dBA change is perceived as sounding twice as loud (or half as loud). For example, 60 dBA is approximately twice as loud as 50 dBA.

A noise problem usually consists of three distinct parts: a source, a path, and a receiver. To abate the problem, one or more parts have to be controlled. The ways to control each part are discussed later in this report.

B. Major noise sources

The major noise sources can be divided into three basic groups: transportation related sources; construction related sources; and site and social related sources. Of these three groups, the transportation related sources affect the most people. The transportation related sources include: motor vehicles (cars, trucks, and motorcycles), highways and major arterials; aircraft and aircraft paths; and trains and train tracks.

Trucks and tractor trailers comprise the greatest noise source of the motor vehicles. The average heavy truck cruising at 45 mph produces about 86 dBA at 50 feet, although levels above 94 dBA are common. A three to five percent upgrade in the highway produces 2 dBA more than on a level road. Acceleration on a level road produces 5 dBA more than steady running conditions.

The average noise level of passenger cars traveling at 35 mph produce less than 86 dBA at 50 feet. A decrease in the average noise level of passenger cars has occurred in recent years.

Motorcycles and sports cars can be as noisy as trucks and are often judged by the public to be more annoying. As with cars and trucks, motorcycles and sports cars generate significantly higher noise levels during acceleration than while maintaining a steady speed.

To estimate noise levels and to predict future noise levels along the major roads, the California Department of Transportation (Cal Trans) has estimated noise contours along Highway 101 (Bayshore Freeway), Highway 92 (J. Arthur Younger Freeway), and Highway 82 (El Camino Real). The City has estimated existing and predicted noise contours along the six heaviest traveled streets. The following list indicates the streets, or sections of streets, for which estimates were made:

1. Alameda de last Pulgas.
2. Delaware Street - Poplar Avenue to 10th Avenue; 16th Avenue to 25th Avenue.
3. East Third Avenue - "B" Street to Foster City Boulevard.
4. Hillsdale Boulevard - 19th Avenue to the College of San Mateo; Alameda de last Pulgas to Foster City Boulevard.
5. Peninsula Avenue.
6. San Mateo Drive - Peninsula Avenue to Baldwin Drive.

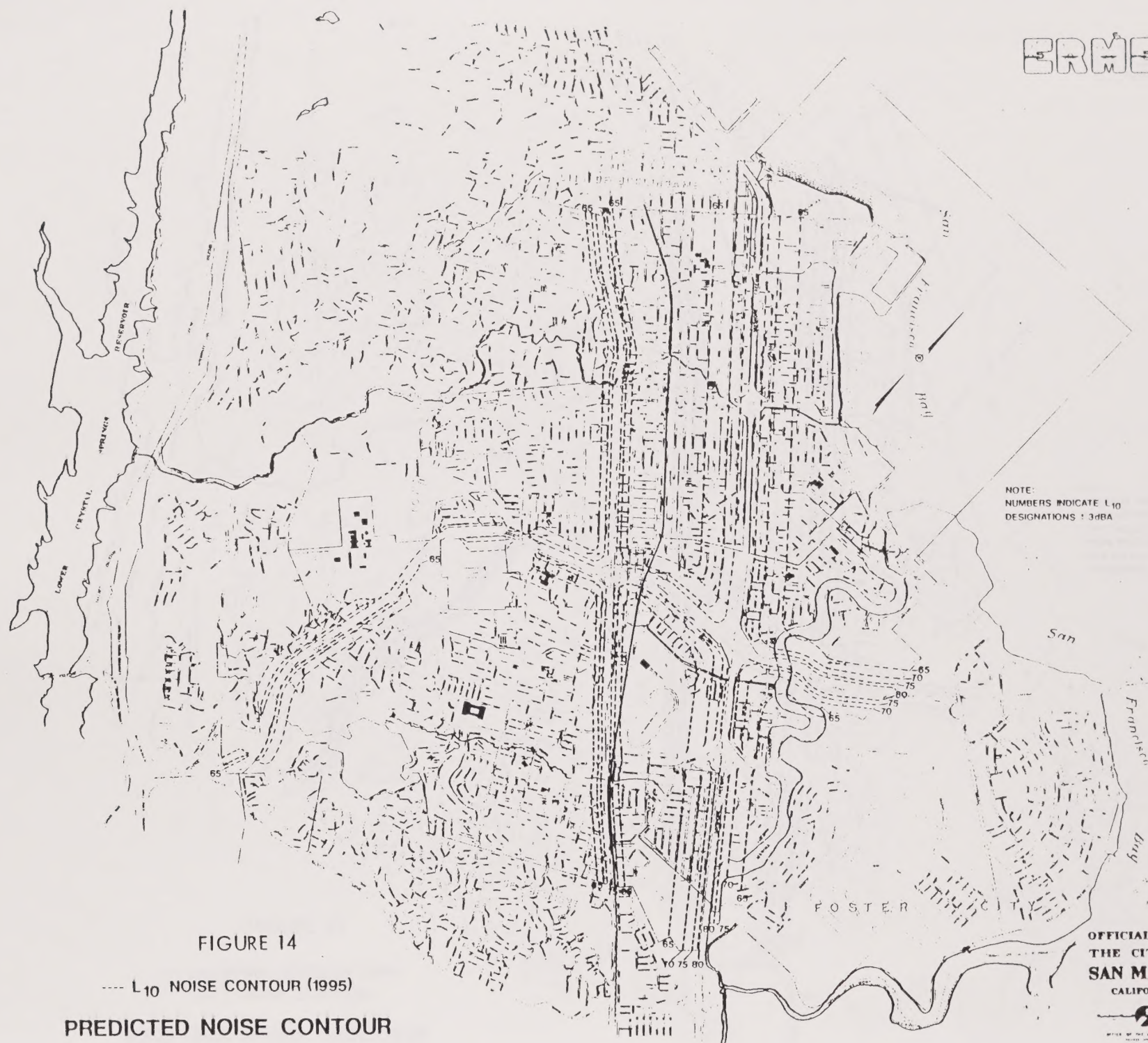
These contours were determined by Federally approved methods found in the National Cooperative Highway Research Program, Report No. 117. The contours are shown in L_{10} designations $+3$ dBA on the Noise Contour Maps (Figures 13-16).

Noise contours for aircraft from San Francisco International Airport and San Carlos Airport have been prepared by the San Mateo County Airport Land Use Commission. These contours are given in Community Noise Equivalent Level (CNEL) values on the Noise Contour Maps (Figure 13). The CNEL values are determined from numerous factors such as flight path, time of day, aircraft type, and number of operations.

Trains and train tracks are another significant source of transportation-related noise. Sound pressure levels for trains represent single event levels rather than continuous levels, as used for vehicles and aircraft-related noise. The reason for this is that there are relatively long intervals between each train, thus they are viewed as "point" sources. Vehicles and aircraft have shorter intervals between occurrences and are viewed as a "line" source. According to the estimates made by Caltrans, a train engine generates about 90 dBA at 150 feet.

Construction related noise is another source of noise. This group includes such items as: diesel engines, electric motors, air compressors, pile drivers, and other construction-related equipment. These sources are annoying because of the high sound pressure levels and pulsating nature of the noise they typically generate.

Site and social related sources, the third major group, cover a wide variety of noise sources including the following: heating and air-conditioning equipment, industrial equipment, power equipment, amusement objects, hi-fi and radios, children at play, animal noise, and vocal noise. These sources of noise can be the most difficult to control for they can occur anywhere and at anytime.



NOTE:
NUMBERS INDICATE L₁₀
DESIGNATIONS : 3dBA

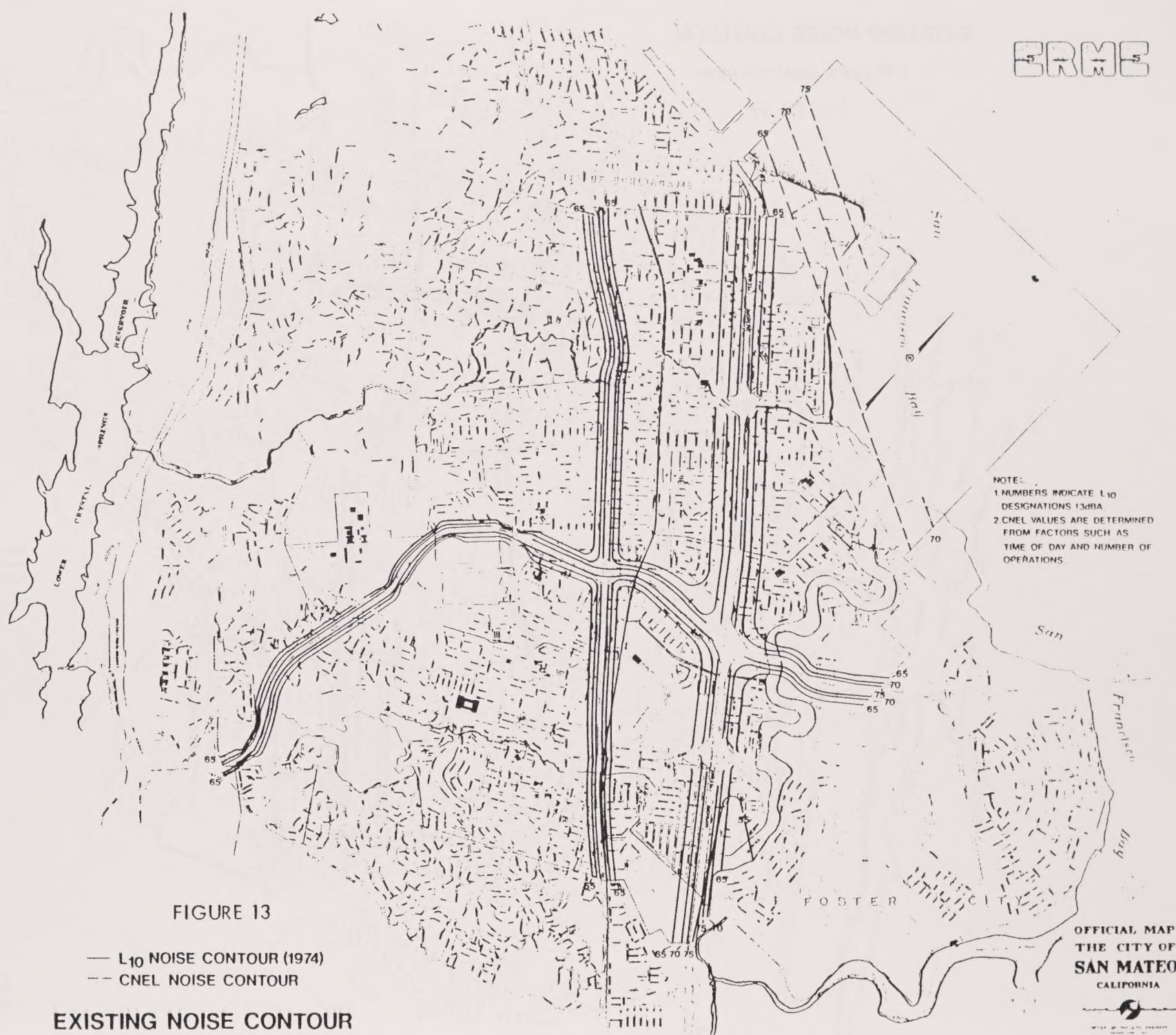
FIGURE 14

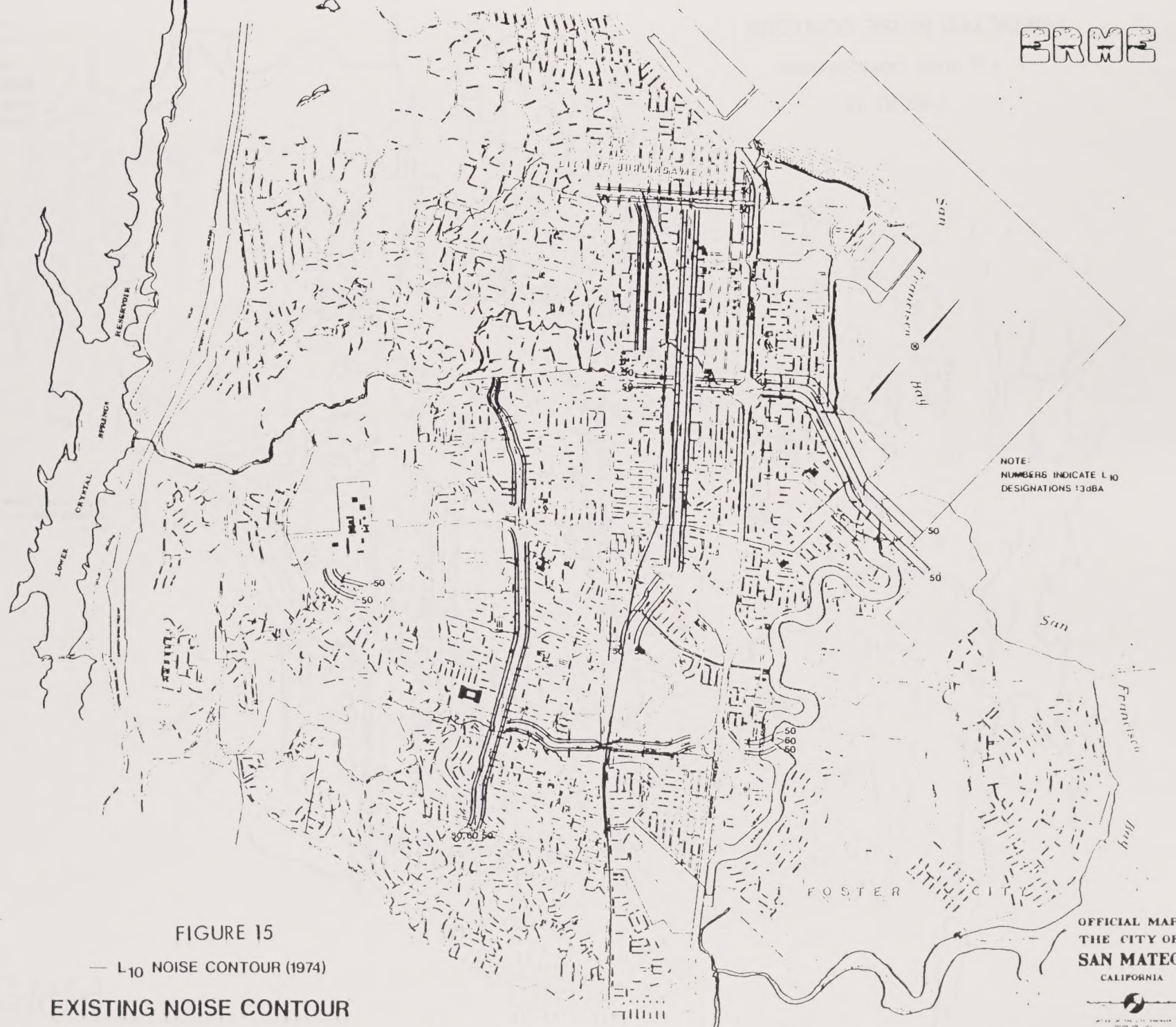
--- L₁₀ NOISE CONTOUR (1995)

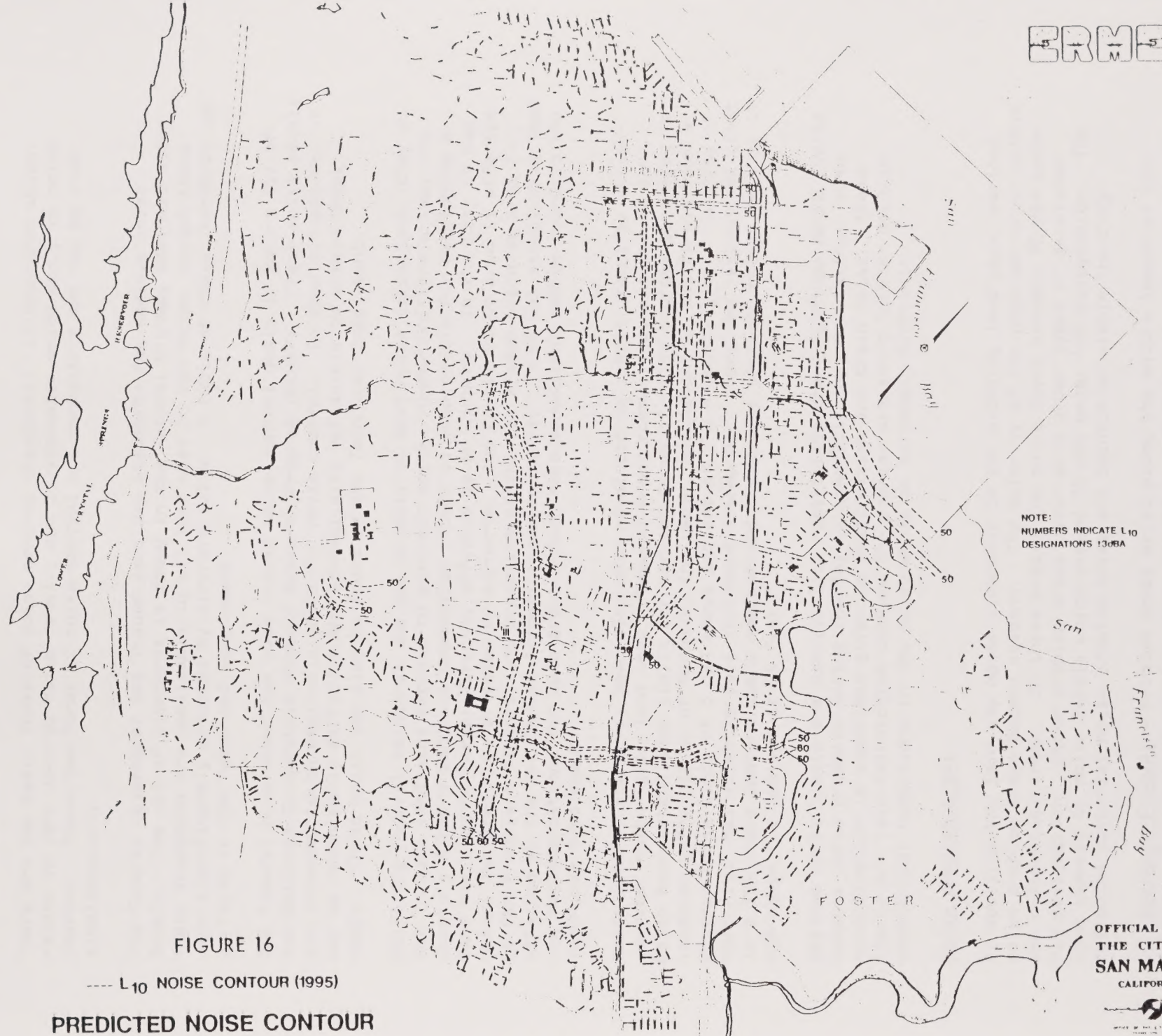
PREDICTED NOISE CONTOUR

OFFICIAL MAP
THE CITY OF
SAN MATEO
CALIFORNIA









---- L₁₀ NOISE CONTOUR (1995)

PREDICTED NOISE CONTOUR

c. Noise control standards

There are two basic forms of noise control standards: 1) standards which relate to land uses to noise levels; and 2) standards which apply to noise sources. These two forms of noise control are compatible and may be used simultaneously.

The Federal Government has issued land use standards for various noise levels. One set of standards is found in the Federal Highway Administration. These standards are applicable to all land uses in San Mateo, except those uses significantly affected by aircraft noise. A table of these standards can be found in the Technical Supplement.

The Federal Government has also issued noise control goals in Report 117 of the National Cooperative Highway Research Program (NCHRP). These noise levels are intended to be desirable goals for noise control. In some situations, it may be technically difficult and economically unfeasible to attain these goals. These goals can also be found in the Technical Supplement.

While the Federal standards and goals apply to most noise situations, they do not include land uses exposed to aircraft noise. Under California Law, the County's Airport Land Use Commission (ALUC) is responsible for developing a land use plan for areas directly affected by an airport. In the City of San Mateo, two areas are affected by airports: the Coyote Point area is affected by San Francisco Airport; and a portion of the Los Prados planning area is affected by the San Carlos Airport (see Figure 13). ALUC has established land use recommendations for both areas. Such recommendations can be found in the Technical Supplement.

Noise control standards have also been developed to control specific noise sources, rather than land uses. Several urban communities similar to San Mateo have established limits for various types of noise sources according to location. The Cities of Burbank, Inglewood, and Alhambra, California have a general noise limit of 5 dBA above ambient at the property line. The City of Palo Alto, has slightly less stringent standards. There the residential limit is 6 dBA above ambient above ambient and the public property noise limit is 15 dBA above the ambient at 25 feet.

Daytime noise limits are usually less restrictive than nighttime noise limits because noise produced during the day is generally less irritating. Also, consideration is sometimes given to construction and train noise. These limits are less restrictive because the sources are short term or because substantial reductions in the noise would be extremely difficult.

Noise problem areas

By applying the land use noise standards to the existing land uses, various noise problem areas become evident. The majority of the problems occur within the residential areas. In these areas, the noise level exceeds 70 dBA under L10 designation. Other problem areas occur with other types of developed land exposed to noise levels which exceed 75 dBA under L10 designation. The following potential noise problem areas are identified within the City:

1. Bayshore Freeway - Problem areas exist along the entire length of the freeway. Residential problem areas extend to approximately 400 feet (1 1/2 blocks) of the freeway.

The standard for other developed land is also exceeded in many places.

2. El Camino Real - Problem areas exist along those portions north of J. Arthur Younger Freeway to the City Limit. Residential problem areas extend approximately 180 feet from the street.
3. Delaware Street - Problem areas exist in various portions along the entire length of the street. Residential problem areas extend approximately 80 feet from the street.
4. Alameda de last Pulgas - Problem areas exist along the entire length of the street. Residential problem areas extend approximately 80 feet from the street.
5. Other problem areas - Several other problem areas have been identified along Hillsdale Boulevard, J. Arthur Younger Freeway, Peninsula Avenue, East Third Avenue, and San Mateo Drive. Again, residential problem areas are the most numerous.

These areas were identified from estimates made by Caltrans and the City's Engineering staff. While these estimates indicate general noise levels, individual readings are necessary to determine precise noise exposure levels at specific site locations.

Specific noise sources cannot be as readily identified as noise problem areas because they occur at random places and at random times. The limits for noise sources were designed to control specific noise violators. The difficulty comes in enforcing the noise limits. In many cases, the noise problem lasts only for a few minutes or even seconds. Another difficulty is the lack of training in the use of sound level meters to take accurate noise level readings.

D. Possible mitigation measures

There are three basic ways to control noise: 1) lessen the noise at its source; 2) lessen the noise along its path; and 3) lessen the noise at the receiver.

The ideal way to control noise is to lessen it at its source. This can be done by changing the design of the source, adding a muffler or other noise attenuating device, or surrounding the source in a noise reducing enclosure. The City can establish standards for most sources within the City. Several major sources, however, have standards which are not controlled by the City; they are the following: noise standard for registered vehicles are set by the California Vehicle Code; train standards are set by the Environmental Protection Agency (EPA) and the Federal Department of Transportation; aircraft standards are set by the Federal Aviation Administration and the EPA.

Noise standards can be implemented in a Noise Control Ordinance, the Zoning Code, or the nuisance section of the Municipal Code. A Noise Control Ordinance would set standards for noise generation in various areas of the City. To use the Zoning Code, noise generation standards would be established for each different zone in the Zoning Code. To use the nuisance section of the Municipal Code, noise generation standards would be added to the existing nuisance section.

Although the City cannot establish standards for registered vehicles, it can increase enforcement of California Vehicle Code regulations concerning excessive vehicle noise.

Another way of controlling noise is to lessen it along its path. This can be accomplished by either using a noise barrier or by increasing the distance of the path. Noise barriers can be both attractive and effective ways of lessening noise along its path. There are numerous types of construction and materials available for noise barriers, such as a combination block wall and earth berm. Such barriers have been found to reduce the noise by as much as 15 decibels.

The establishment of Noise Impact Districts would be helpful in informing prospective applicants of potential high noise areas and the amounts of noise reduction necessary for particular zones. In order to develop a site in a Noise Impact District, accurate noise information from the specific site and noise attenuation measures compatible with adjacent land uses would be required.

The third way of controlling noise is to lessen it at the receiver. This can be done by insulating structures and by site planning. The City can implement these measures by using the Zoning Code and/or Building Code. The Zoning Code would incorporate interior noise standards for different zones. The Building Code would include sound transmission standards for materials used in construction.

3. GENERAL SAFETY

A. Background

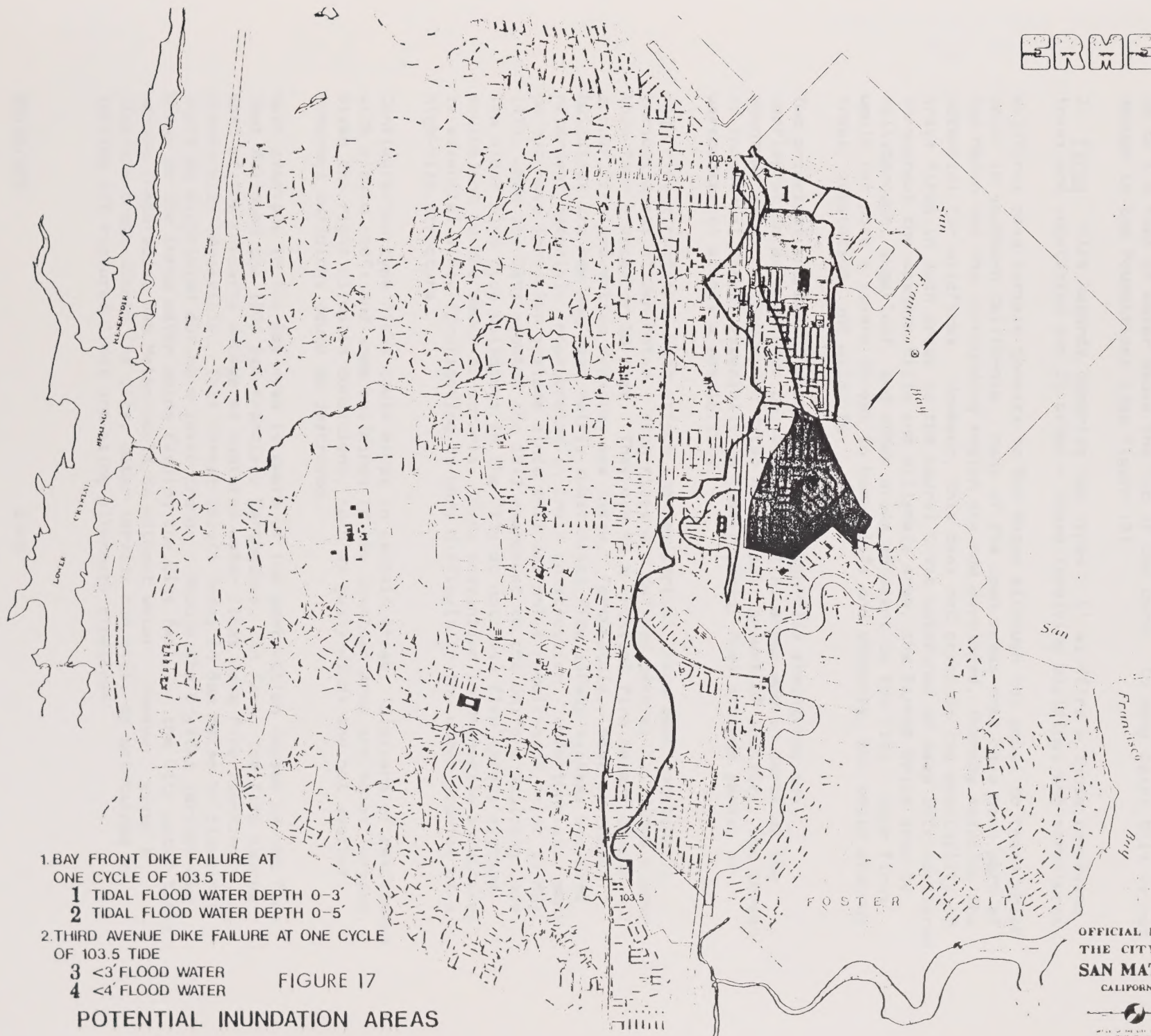
This aspect of the ERME deals with hazards that are not seismically related. They are the following: inundation from dike failure and 100 year storm; fires; non-seismically induced geologic hazards, such as slope stability (landsliding) and expansive soils; and other disasters as addressed in the City's Contingency Emergency Program.

B. Problems

1. Inundation. Principle sources of potential inundation are the Bay front dike; the Third Avenue dike; and Marina Lagoon during a 100 year storm.

Local high tide reaches a level as high as 103.5 feet. The general area between the Bay front dike and Bayshore Freeway is at or above elevation 99 feet, with some few exceptions. Therefore, it appears that if the dike were to fail, up to five feet of water above curb may be expected in portions of the area behind the dike during a high tide of 103.5 feet (see Figure 17). However, this would occur during one cycle of tide. It is possible that during a second cycle of tide at 103.5 feet the area of inundation could be extended but not beyond the 103.5 foot contour which is the maximum possible inundation elevation.

Failure of the Third Avenue dike would result in a similar situation, only to a lesser degree. Waters would not exceed four feet above curb during one cycle of high tide (103.5) and only up to the 103.5 foot elevation. Although inundation in San Mateo is not a severe threat to human life, failure of either dike would cause significant property damage (see Figure 17).



Marina Lagoon serves as a retention reservoir to pick up peak storm water runoff. During rainy seasons the water depth is kept low in order to accommodate the added inflow. However, at its present pumping capacity, the Lagoon would not be able to accommodate storm water runoff during a 100-year storm. What would result is a backup of storm water into the streets leaving up to 1.5 feet of water above the top of the curb. In many cases this is not enough to top foundations (see Figure 18).

2. Fires. Fire hazards comprise two types: 1) wildfire - those involving trees and vegetation and 2) urban - those involving buildings and structures.

Wildfires pose certain threats to San Mateo although not equal to those which occur in southern California. Many of the open areas that have been part of San Mateo and the surrounding region are now developed, thereby reducing the potential for wildfires. However, this does not preclude the possibility of grass fires in such areas as the Laurel Creek watershed or deep lots scattered throughout the western hills and Hillsdale area, the Parrot Drive area by Hillsborough, Sugarloaf, and other areas adjacent to the City. Such fires would not pose a severe threat to human life and property, but would destroy trees, vegetation, and wildlife.

Two principal sources of urban fires are high-rise structures and conflagration as may occur in some residential areas and in parts of the downtown area. Although San Mateo has a small amount of industry, the threat of industrial fires, especially in lumber yards, fuel storage yards, or warehouses is always a possibility.

High rise structures, both office and residential, have been locating in various areas of San Mateo. High rises are defined here as buildings higher than four stories or 50 feet. They can be a critical fire hazard unless proper fire preventive measures are taken. Fortunately, most of these buildings are new and have fairly substantial fire safety systems and fire retardent materials incorporated in their construction. Unfortunately, many do not have sprinkler systems since this was not a requirement prior to May, 1974, when the City adopted the 1973 amendment to the Uniform Building Code. The older high rise buildings in the City do not have fire safety systems equivalent to the newer structures. Fire prevention in high-rise structures is essential since firefighting is very difficult in the upper stories of a high-rise structure.

Conflagration type fires could erupt in certain areas. Clusters of residences with single roofs and some buildings in the downtown area are major targets. Given the right climatic conditions, such as gusty winds and hot weather, numerous buildings could be destroyed.

Most everyone in the Bay Area is aware of the destruction caused by the fire that followed the 1906 San Francisco Earthquake. In fact, the fire caused most of the property damage as ruptured water lines made fire fighting practically impossible. This threat exists today in San Mateo as pipelines could be disjoined during a sever tremor. Should the Crystal Springs Dam break or the three water mains feeding the City fail, or the City water tanks become inoperable, San Mateo would be without water. However, given a pipeline break within the City, water service can still be maintained by sealing off ruptured lines and using alternate pipelines.

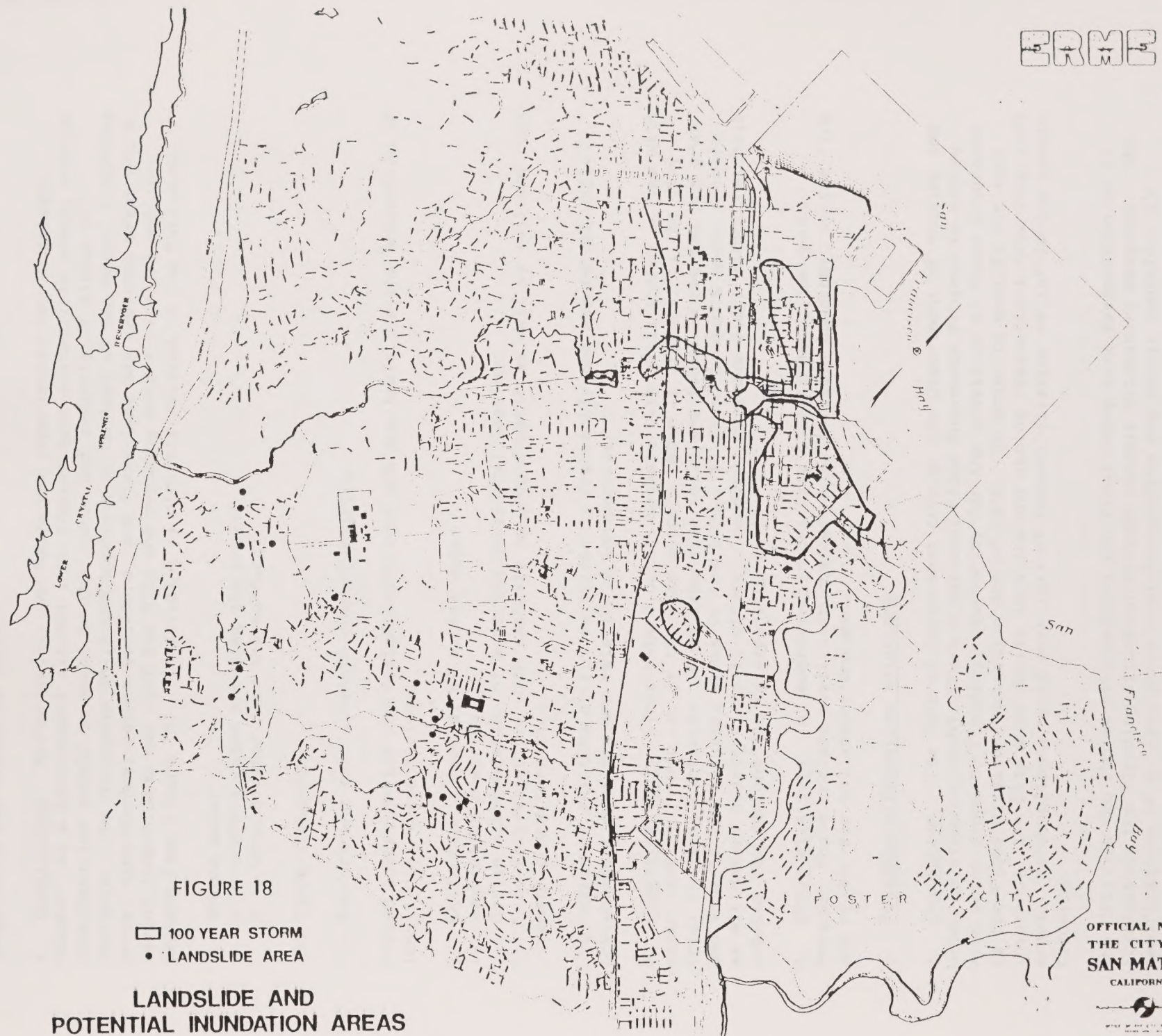


FIGURE 18

- 100 YEAR STORM
- LANDSLIDE AREA

LANDSLIDE AND POTENTIAL INUNDATION AREAS

OFFICIAL MAP
THE CITY OF
SAN MATEO
CALIFORNIA



WRITTEN BY THE CITY ENGINEER
REVISION NO. 1

3. Non-seismically induced geologic hazards. Hazards of this type include landsliding and expansive soils.

a. Landsliding. Historically, San Mateo has experienced few landslides. However, as a development extends into steeper more susceptible areas, special consideration should be taken or the number and severity of slides will increase. The Hillsdale Boulevard approach to College of San Mateo, Kingridge Drive, 42nd Avenue, DeAnza Boulevard, and Timberlane Way are some areas where recent landsliding has cost the City and property owners over 1/2 million dollars (see Figure 18). Landsliding is directly related to the following:

- i. Ground water
 - a. Surface water entering the ground
 - b. Ground water near the surface
- ii. Slope steepness
- iii. Bedrock and soil strength characteristics.

Proper investigative and design techniques are available for the prevention of landslides, these include:

- i. Collection and removal of excess water
- ii. Vegetative covering
- iii. Design accommodation of expected horizontal loading
- iv. Site investigations with emphasis on ground water as well as soil and rock strength characteristics.

The repair of existing or future slides is frequently not economical while preventative measures are relatively inexpensive.

b. Expansive soils. This hazard occurs because clay soils change volume with water content. That is, as the clay absorbs water it expands, as the clay dries the soil contracts. Most expansive soils are found in the Bay mud area and some in the alluvial areas of the City. It is no longer a major problem as mitigatory measures are in effect. However, numerous older structures have cracked foundations due to expansive soils.

4. Other disasters. As addressed in the City's Contingency Emergency Program, these include civil disturbances—bomb threats, bombings, sniper fire and riots; air pollution; and war.

C. Possible alternative solutions

1. Inundation. The Federal Government through the Department of Housing and Urban Development (HUD) offers a National Flood Insurance Program to cities with areas prone to flooding. Authority for the provision of flood insurance is the Flood Disaster Protection Act of 1973. In order to qualify for such insurance, the City must devise land use and zoning regulations regarding such areas. Noncompliance would mean loss of Federal disaster relief during severe flooding.

The City has the choice of accepting the flood prone area designation or of alleviating the flooding situation through various mitigatory measures. The ramifications of a flood prone area designation are mainly twofold: 1)

homeowners in the area would have to purchase flood insurance or they would have difficulty in securing a loan to sell or improve their home, and 2) a problem of the continuing lack of safety from flooding. The deadline is July 1, 1975, at which time the City must agree to comply with one of the two alternatives.

2. Fire prevention program. Fires in San Mateo are not a frequent occurrence, fortunately. However, this does not preclude the need for improvements to reduce fire hazards. Such improvements might include the following:

a. Develop a comprehensive water lifeline system capable of meeting events of catastrophic proportions. This would include reservoirs and Bay water access.

b. Continue to vigilantly adopt and apply changes in the Uniform Building Code concerning fire prevention measures for high-rise structures. This would also include applying retroactively such amendments to older structures if feasible and effective. Such measures may include intercom systems, compartmentation, detectors, smoke control, fire alarms, elevator control, emergency power, and sprinklers.

c. Utilize design measures in high-rises that would reduce the upward spreading of flames.

d. Utilize fire retardent materials on roofs of residential structures and other low rise buildings.

3. Encourage the adoption and continuous improvement of the Automatic Aid program among the cities of San Mateo, Belmont, Burlingame, Hillsborough, and Foster City.

f. Seek additional sources of water for firefighting purposes.

3. Geologic hazards prevention program. In reducing the landslides and expansive soil problems, preventative measures are most effective. Landsliding will continue to be a problem as long as development occurs in the southwestern region of the City; the area most susceptible to landslides. Careful consideration and the identification of potential landslide areas and of subsurface conditions is essential in alleviating this hazard.

The problem associated with expansive soils can be solved by placing foundations two to three feet deep or on a non-expansive fill, thereby creating stability in water content of clayey soils. Existing City standards have effectively abated this problem.

The solutions recommended for seismically related geologic hazards can also be applied to these non-seismically related geologic hazards. They are well covered in the section on seismic safety.

4. Contingency/emergency program. The City of San Mateo is developing contingency plans for the various hazards identified in this section and in others dealing with earthquakes and flooding. They are part of the Civil Defense Disaster Plan. The plans are general guidelines for different City departments, officials, and employees to follow in case of a disaster. The consolidation of police and fire communications initially and public works sometime thereafter will be advantageous to the Contingency Emergency Program.

4. ENERGY CONSERVATION

A. Background

In 1973 the American people were confronted with a situation that severely affected their life styles - the energy crisis. The shortage of gasoline to operate automobiles, the shortage of fuels and other energy to heat homes and operate business and industry resulted in long waiting lines at gas stations and higher prices for energy-producing fuels.

A very significant outcome of the crisis was that it created an awareness in people that the nation's resources are not limitless and that there is a definite need for energy conservation measures to be taken by all sectors of society.

Because the energy problem is a nationwide concern, one city's energy conservation measures will have a limited affect. However, they could serve as an incentive for other cities to follow. This section will deal with only those energy saving programs that San Mateo can put into effect; e.g., land use and physical development, transportation, and community management. The following section briefly addresses each.

B. Energy conservation measures

Energy conservation measures generally fall in three categories - land use and physical development, transportation, and community management. The measures within this section are suggestions and will require further analysis if they are to be placed into effect.

1. Land use and physical development. Measures that can be taken under this category include evaluation of present land use and housing policies regarding population density and building intensity for the affect on energy usage. Higher population densities and building intensities (with compensating comparable open space) use less energy than lower densities on scattered sites. A compatible mixture of uses to reduce unnecessary travel, such as residential/commercial complexes in high density areas can be an effective energy saving measure also. Locating new development or redevelopment in a manner that would result in clusters of commercial, office, residential, and recreational activity areas can also be feasibly achieved.

Recreation areas and open space reserves should be provided on close-in sites and on a generous basis. This will provide the necessary open areas to accommodate the people living in the higher densities. It will also tend to reduce the energy spent traveling to remote park areas.

The physical placing of buildings on their site is important so as to take advantage of natural energy sources. Locating rooms to use the sun and shade at the most appropriate time of day can reduce the need for heating and cooling systems.

2. Transportation. The automobile is a major user of energy. Therefore, reducing auto usage by providing alternate transportation, such as bicycle routes and public transportation, also reduces energy consumption.

Most development is geared around the usage of the automobile. Future projects could make provisions for different transportation modes. These

would include bicycle paths and pedestrian ways. In conjunction with this, providing a link among the different areas of the City would result in a comprehensive multi-modal transportation system.

For intercity commuter travel, encouraging carpooling when use of the automobile is essential can also reduce energy consumption.

3. Community management. This program comprises two categories:

First, conservation approaches in public facilities include lowering temperatures for winter heating and raising them for summer cooling; reducing or combining field trips; purchasing compact autos when older larger vehicles are fully depreciated; daytime meetings; converting street lights to mercury vapor; reducing office lighting; and the like.

Second, public conservation of energy through city actions. This includes revision to building codes and standards such as requiring more insulation and better air conditioning and heating systems in construction. In addition to this, public education programs to make people aware of energy loss where they live and work can help reduce energy consumption.

C. Conclusion

Most of the above measures appear to be long range except for such immediate actions as carpooling, lowering temperatures, reducing vehicle trip, or preparing a parking management plan. When dealing with long range concerns it is difficult to predict what the future will bring, especially when changes in technology far exceeds changes in planning concepts. Being aware that such conditions exist and being prepared in advance to deal with them is the most that can be expected at this time until state and national policies regarding the above measures are more precisely defined.

I. INTRODUCTION

PURPOSE

This Action Program is the third of a series of four documents which comprise the Environmental Resources Management Element of the City of San Mateo General Plan. The first is the Goals and Policies report which sets forth environmental policies for the City. The second is the Resources Report which describes a variety of environmental factors and discusses related problems. The fourth report is the Technical Supplement which details background and reference materials used in preparing the element.

The Action Program is based upon the discussion of environmental factors and the City goals and policies concerning them. It suggests ways in which goals can be realized through actions on the City's part. In preparing the actions described in this report, the ability and practicality to effect them has been considered. This report organizes proposed actions in six categories for convenient discussion: code additions, code revisions, planning studies, review procedures, direct action programs, and contingency plans.

Among the four documents of the ERME, it is expected that this action program will be reviewed, updated, and changed most frequently. As the recommended programs and studies are implemented, this report must acknowledge such facts. This report, more so than any other, will reflect the City's success and progress in implementing the goals and policies of ERME.

II. CODE ADDITIONS

1. NOISE ORDINANCE

In developing a noise ordinance, the City will establish the maximum acceptable noise levels for both interior and exterior sources for various areas within the City. These levels will be developed in relation to ambient noise levels—those generally characteristic of a given area. Maps will be prepared to indicate areas of particular concern. Presently, the State is in the process of establishing noise standards to be included in the Uniform Building Code. Such standards will have the additional indirect benefit of conserving energy, as insulation is the key factor in both matters. Such an ordinance can be put into effect almost immediately.

2. SCENIC HIGHWAYS ORDINANCE

The ordinance will designate and protect significant and/or potentially significant scenic roads, which include Crystal Springs Road, Polhemus Road, Younger Freeway, Alameda de las Pulgas, and Third Avenue. Scenic corridors, where possible, will be established for each. Review of development within each corridor would be a requirement based on adopted criteria. In addition, other programs can be developed that are aimed at preserving the scenic quality of the roadways. Programs for Crystal Springs Road, Polhemus Road, the Alameda, and Younger Freeway will be prepared in concert with the County of San Mateo and the Town of Hillsborough (for Crystal Springs Road). Such an ordinance will be established within the parameters of the requirements of the County. Project review on an ad hoc basis will be conducted until the streets are officially designated and an ordinance enacted.

3. HISTORICAL PRESERVATION ORDINANCE

Identify through official register historically significant structures, sites, and areas and allow for their preservation. Public hearings will be conducted for the removal and alteration of historic structures and sites to determine the feasibility of their preservation. Procedures will be developed through the ordinance. In areas of historical prominence, historical districts will be established. Until such time as the ordinance is enacted, project review on an ad hoc basis will be conducted. As a tribute to the nation's centennial year celebration, San Mateo could enact the ordinance in the near future; preferably by 1976.

4. NATURAL VEGETATION AND WILDLIFE ORDINANCE

Procedures will be developed in the ordinance to require certain prevention measures to be observed in developments. Areas of significant vegetation and wildlife. Such an ordinance will also affect air and water quality, the natural topography, scenic highways, urban form, and provide a degree of safety. Like the historic preservation ordinance, the 1976 centennial celebration is a time consideration for ordinance enactment. Ad hoc review will suffice until enactment.

5. WATER ACCESS ORDINANCE

The ordinance will provide for the protection of water quality and public access to water courses. Waterways will be designated as well as impact corridors on either side of channels or creekbeds (except where culverted). Treatment of land within the impact area to recognize the water features will be a requirement. This can be accomplished by either a linear park development or other design. Configuration of easement may vary depending on evaluation by reviewing bodies. Water, wildlife, open space, conservation, and general safety are major concerns. Until the enactment of the ordinance, project review on an ad hoc basis will occur.

6. DANGEROUS BUILDING ORDINANCE

Safety criteria will be established for various types of structures based on use and life expectancy. Existing buildings will have to meet such safety criteria. The ordinance will provide protection against personal injury and property damage by correcting unsafe building conditions. The ordinance will affect such factors as seismic safety and historical/cultural concerns. The ordinance can be adopted immediately while the actual inspection program will take two to five years to complete.

7. PARAPET ORDINANCE

The ordinance comprises a two-step approach: 1) the ordinance, which will require reinforcement or removal of dangerous parapets and other appendages of structures, and 2) the establishing of criteria to determine the safety of parapets and appendages. To enforce the ordinance, an inspection program will have to be implemented. The program will be carried out concurrently with the

dangerous building program and compliance with the ordinance may mean reinforcement or removal of dangerous parapets and appendages. Although the program ordinance will protect the public against personal injury, it can affect the historical and architectural significance of older structures. In order for the program to be effective, the ordinance must be enacted; preferably as soon as possible.

III. CODE REVISIONS

1. ZONING CODE

Revisions to the zoning code will involve the examination and revision of open space requirements in the R3 district; the establishment of a design manual for development in the R5 district; the development of design criteria for planned developments and the re-examination and revision as necessary of buffer and transition criteria in various other zones. The types of projects produced by the R3 zone will be evaluated, a 300 sq. ft. area of open space will be a requirement for all units, and the floor area ratio special permit feature will be eliminated. As specified in the zoning code, a design manual may be developed for the R5 zone which will take into account a review of the effectiveness of bonus features. The effectiveness of the regulations for the executive zone as well as buffers and transition will be studied as part of the general height, bulk, and open space study. To add strength to the planned development procedure, more precise design guidelines will be developed. Such a program will greatly affect open space within the City. In order for the revisions to be effective, the code amendments must be adopted. The codes can be amended immediately to intermediately.

2. IN-LIEU PARKING PROGRAM

The program has been developed but needs further study. After study, an ordinance and/or resolution must be adopted to establish the program. The program will indirectly affect air quality and energy conservation. Until the ordinance and resolution are adopted, preferably as soon as possible, project review will be conducted on an ad hoc basis.

3. UNIFORM BUILDING CODE AMENDMENTS

The International Conference of Building Officials, sponsors of the Uniform Building Code (UBC), frequently propose changes to the UBC. Because these changes to the UBC. Because these changes affect better quality and safety in construction, their prompt consideration and adoption is preferred. Their greatest areas of effectiveness will be seismic safety, general safety, noise, and energy conservation. Updating is an ongoing process and the changes must be adopted to be effective.

4. SITE DEVELOPMENT CODE AMENDMENT

The amendment will develop area and slope criteria and procedures in the Site Development Code, generally for slopes greater than 25%. The amendment will limit the grading of slopes for safety and site protection reasons. Such an amendment will affect many areas: open space, vegetation, water, topography, scenic highways, seismic safety, and general safety. Project review will be handled on an ad hoc basis where the code amendment is adopted. The time of it is intermediate.

IV. PLANNING STUDIES

1. WILDLIFE PRESERVE

Because insufficient information exists concerning the stability of soils and their likely reaction to seismic activity, better quality data must be obtained and analyzed before site-specific conclusions can be drawn. The study will establish a framework and library for soils reports prepared for projects so that they may become part of a citywide soils information reference. When necessary, soils investigation will be performed to confirm conclusions about potentially hazardous conditions. The areas directly affected will be seismic safety, general safety, and topography and indirectly, vegetation and open space. Detailed knowledge of soils stability will reduce hazards and costs of repair in affected areas. Such a study will be ongoing.

3. MARINA LAGOON PARK PLANNING

Because Marina Lagoon is a significant recreation facility, wildlife area, and public works installation, it has the potential of being a multi-purpose open space area. State water and conservation funds may be obtainable for improvements and expansion of public ownership of lands adjacent to Marina Lagoon. Advanced planning and scheduling of capital expenditures can put San Mateo in a good position to obtain such funds. Such a project will greatly affect vegetation, water, wildlife, open space, and safety. The study will be intermediate and ongoing; however, return on time invested is uncertain.

4. CRYSTAL SPRINGS DAM STUDY

While the dam poses potential dangers to downstream areas, a study concerning its safety has not been conducted. An in-depth analysis of this dam, as well as the San Andreas Dam, will be requested of responsible agencies. These include the San Francisco Water Department and the Division of Dam Safety; these agencies should be requested to give priority to the two dams. Detailed knowledge of the extent of danger from the two dams will permit improved contingency planning and other actions. The two areas most affected are seismic safety and general safety. Its immediate attention is preferred.

5. GENERAL PLAN REVIEW

The 1974-1975 annual review of the General Plan will be the occasion for review of the implications and compatibility of the ERME with other elements, especially the Housing and Land Use Element and the Parks and Recreation Element. Review of the other elements of the General Plan will be conducted in light of the findings of ERME. Unless an attempt is made to have other elements reflect the ERME, its implementation may be delayed. The review is an ongoing process.

6. TREE POLICY STUDY

There is considerable concern over landscaping and vegetation; however, no comprehensive policy exists. Since the City recognizes the value of both natural vegetation and trees planted by man, a long-range tree planting program can be implemented. Such a program will supplement the newly

established Add-a-Tree program. The program will include priorities in terms of deficient areas of the City, treatment of entire streets, continuing allocation of funds, and make clear responsibilities of private developers and conditions which will be required of projects. The policy will have far-reaching implications affecting such areas as vegetation, noise, urban form, scenic highways, open space, and conservation. It will be ongoing as update may be necessary.

7. WATERWAYS POLICY STUDY

The City's waterways can be maintained for both water conveyance and other purposes. An evaluation of water courses with an eye toward multiple use and keeping streambeds natural can produce recreational and scenic resources which the City can continually take advantage of in the future. The policy will articulate the City's long-term view of the treatment of waterways and drainage channels. Without such a policy, waterways will continue to be neglected and their recreational and scenic potential may never be realized. The areas of ERME affected by the policy area water, vegetation, wildlife, conservation, and open space, directly and general safety, indirectly. It is an ongoing process requiring periodic updating.

8. RIGHT-OF-WAY POLICY STUDY

The policy will recognize that street surface can be used for many purposes in addition to moving cars. In establishing the circulation or transportation element for the City, thought will be given to circulation improvements together with the desirability of street widening and damaging consequences, street enclosure, bicycle paths, and the like. The policy will affect vegetation, scenic highways, urban form, and open space.

The policy may require periodic updating.

9. REDEVELOPMENT POLICY STUDY

Many older areas of town have been uniquely developed and contain fully mature trees. In addition, existing public services may have been installed many years ago. However, redevelopment may remove and place new projects among existing development. Furthermore, redevelopment takes place one small development at a time, making it difficult to assess any cumulative impacts. The policy will allow redevelopment in built-up areas while recognizing general area character, existing mature trees, and the limitation of public services and facilities. Redevelopment criteria will be established regarding transition, buffer, building type, parking, and vegetation and will make it easier to evaluate project/neighborhood compatibility. The areas of ERME affected will be vegetation, urban form, historic/cultural factors, and noise as well as open space and conservation. Timing will be immediate to intermediate.

V. REVIEW PROCEDURES

1. CITY-WIDE/AREA-WIDE ENVIRONMENT IMPACT REPORTS

EIRs are useful for detailing the generalities of ERME. However, they do not allow for an analysis of the cumulative impacts of several or many development projects. This is only possible on an area-wide basis. This procedure will

establish a library of project EIRs for ready reference for neighborhoods generally. Neighborhoods or groups of neighborhoods will be delineated as suitable areas for environmental assessment. Use confirmation from ERME and other sources to outline studies of impacts of successive projects. This approach will cover areas in which current EIRs are deficient. It may also lessen the need to produce EIRs for individual projects, or at least only an addenda to area-wide reports. It will be ongoing.

2. FINDINGS OF CONSISTENCY

It is important that cumulative, overtime, projects and City actions follow the General Plan goals, albeit it is not necessary that individual projects be always consistent with the elements. However, reviewing bodies, especially BOZA, can make findings on individual projects to see if they are consistent with, neutral to, or in conflict with the General Plan and specific elements. This will allow an elevation of how successfully General Plan policies are being implemented. It is an ongoing process.

3. PUBLIC EDUCATION

The public will be continually made known of the City's policies on a variety of subjects and supplied information conveniently.

VI. DIRECT ACTION PROGRAMS

1. PARK LAND ACQUISITION

This program involves the acquisition and development of park areas with emphasis on sites significant from an ERME standpoint, such as Marina Lagoon Park, San Mateo Creek linear park, and the like. The program will effect the goals of the Parks and Recreation Element and those of ERME. Directly affected are open space, water, and vegetation, and to a lesser degree, topography and general safety. Acquisition will be an ongoing process.

2. SEWAGE TREATMENT PLANT AND WASTEWATER REUSE

Plans are underway for the expansion and upgrading of the wastewater treatment plant. Since the new wastewater facilities will be capable of providing first, second and third stage wastewater treatment, plans must be prepared for the reuse of water and areas which could benefit from this treated water, such as golf courses and other areas requiring irrigation. This program will affect vegetation, water, and wildlife. The timing will be immediate to intermediate.

3. DIKE RECONSTRUCTION

The stability of the Bay Front Dike has been analyzed and details of its conditions are being developed. In light of what will be an acceptable risk, dike reinforcement programs and funding programs must be developed and approved. The reconstruction of the dike will allow development in the affected areas, make insurance available, and protect life and property. The areas affected principally are housing and land use as well as seismic safety and general safety. The reconstruction of the dike can be completed by July, 1975, in accordance with the deadline established by the National Flood Insurance Act of 1973, regarding flood prone area designation.

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4. BUILDING INSPECTION PROGRAM

The program will be carried out in light of the finding and conclusions associated with the Dangerous Building Ordinance and the Parapet Ordinance. To implement the program will require the adoption of the above two ordinances, a program outline, and manpower to perform the inspections. The ordinances will not be effective unless enforced through the inspection program. The inspection will require 2-5 year to complete.

5. OPEN SPACE LAND DESIGNATION

The City has an established open space zone. However, no lands have been placed in this district. The program will designate as open space certain lands and areas showing significant open space features. Lands included will fall under any of the categories identified within the open space and conservation element. These may include parks, playgrounds, community centers, and facilities that are publicly owned as well as other that meet established requirements. To prove the district's effectiveness, lands must be placed under that category. The program affects a multitude of areas to varying degrees; they are open space, conservation, urban form, vegetation, wildlife, water, air, topography, historical/cultural, seismic safety, general safety, and noise. The timing is ongoing as lands will be continually evaluated for their placement in the district.

VII. CONTINGENCY PLANS

1. DETAILED CIVIL DISASTER PLANS

This will involve the maintenance of sufficiently detailed and operational plans to deal with likely emergency situation. To implement the plans, various annexes must be completed and time periods set for revisions and program training and exercise sessions. The program will be useful only if contingency plans are maintained up-to-date, periodic training sessions conducted, and supportive equipment made available. Their immediate completion is preferred.

2. PUBLIC EDUCATION

This will involve the compilation of a handbook of response to various emergency situations and the dissemination of information throughout the City to alert residents to steps they may take in coping with city-wide emergencies. This will be an ongoing process.

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SAN MATEO SHORELINE PARK



Shoreline Park Specific Plan

AUGUST 1979

SAN MATEO SHORELINE PARK

THE SHORELINE PARK SPECIFIC PLAN
OF THE CITY OF SAN MATEO GENERAL PLAN

City of San Mateo Community Development Department

MAY 1971.

Revised - August 20, 1979

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Shoreline Plan Map

I. INTRODUCTION

1. PURPOSE

The purpose of the Shoreline Park Specific Plan is to provide the citizens of San Mateo, the City and other agencies, and other interested persons with a conceptual guide for the future of San Mateo's shoreline. A specific plan is typically prepared for areas of particular concern to a community, or an area of natural significance; San Mateo's shoreline is both.

The Shoreline Park Specific Plan is intended to implement the goals and policies of the General Plan for the shoreline area. In addition, the Plan extends upon elements of the General Plan as far as they address the Shoreline Plan's planning area — certain aspects of the Parks and Recreation, Open Space and Conservation, Environmental Resources Management, Public Buildings and Facilities, Housing and Land Use, and Circulation elements.

The Plan is intended to be consistent with Bay Conservation and Development Commission (BCDC) policies, County plans, and the policies of other agencies having jurisdiction by law.

2. SCOPE

The physical scope of this specific plan ranges from the Burlingame City limits to the north to Foster City to the south. The summary overview of the Shoreline Park includes a substantial portion of land which is located in Foster City. There are three reasons for this. First, when the specific plan evolved initially, Foster City did not exist as an incorporated entity, and, therefore, the shoreline area was included in San Mateo's sphere of influence. Second, the physical configuration of existing land, streets, water, etc., require that areas in the adjacent community be considered.

Third, while the shoreline is demarked by jurisdictional boundaries, the bay as an ecological system does not pay heed to such arbitrary lines, and enhancement of the bayfront requires comprehensive planning which may go beyond particular city boundaries. The configuration of the plan in Foster City is, however, merely a concept which is compatible with the Plan within San Mateo's boundaries, and remains for Foster City to implement.

The physical scope of the Shoreline Park Specific Plan departs from the vicinity of the Bay in two areas. Because of their direct and necessary relationship to the Bay, certain aspects of San Mateo Creek and Marina Lagoon (formerly Seal Slough) are addressed.

Since the Shoreline Park Specific Plan is an element of the General Plan, the detail it contains is that best suited for general plans and specific plans.

The physical configuration of the Plan's content is intended to show the general location and types of uses or improvements. Detailed environmental assessments and engineering studies are required in the future to define specific designs of uses and facilities, and their location.

3. INTEGRATED APPROACH

For discussion purposes, the Shoreline Park Planning Area is divided into 5 areas. The map following indicates each area, and its name (for reference). A summary overview plan shows the general theme; within the Plan, however, each area is discussed in turn.

It has become increasingly apparent that the Bay and adjacent land are part of an ecosystem which must be studied, planned and considered as a single system. Similarly, City policies with respect to as significant area as the shoreline should be comprehensive, related and integrated to effect as many of its goals and policies. The Plan, therefore, attempts to take an integrated approach to the shoreline while the central thrust of the specific plan is the realization of the San Mateo Shoreline Plan, other City concerns are dealt with to the extent to which they affect the planning area. Fore example, the design and use of Third Avenue, while primarily a circulation concern, is spoken to since it has a direct relationship to the Plan. Other similar situations will be spoken to, although sometimes only generally.

4. PLAN AREAS

II. BASIS OF PLAN

1. INTRODUCTION

Many things combine to produce a plan. The physical and ecological setting provides one set of opportunities and constraints, the City's own capabilities provide another, other jurisdictions and other people provide a third. And finally, society generally provides a further set of opportunities and constraints, both in terms of what is desirable as well as what is economically feasible. The following section circumscribes the basic premises of the Plan.

2. CRITERIA AND BASIC PREMISES

- A. Treat the planning area as a unit.
- B. Increase the length of the shoreline.
- C. Provide as much public access as possible to the shoreline.
- D. Control vehicular access and parking.
- E. Cluster compatible recreational facilities.
- F. Maintain a safe dike.
- G. Provide an efficient drainage system of sufficient capacity for San Mateo Creek and Marina Lagoon.
- H. Provide vista points between the PG&E high voltage power lines and the new shoreline.
- I. Design earth mounds for interesting park topography that will support plant materials.
- J. Recommend architectural standards to achieve high level of visual quality.
- K. Consider a tideway for tidal flushing action possibly using ebb tide flows; develop the option to flush Marina Lagoon in two directions — north/south and south/north.
- L. Eliminate flood inundation hazard.
- M. Retain existing shoals for wildlife sanctuary.
- N. Allow for emergency discharge of wastewater from the Water Quality Control Plant.
- O. Control growth of algae and undesirable biological organisms in regulated waters.
- P. Reuse treated wastewater (and heat) in the parks and recreation facilities.

- Q. Develop storage reservoirs for irrigation water on and in the vicinity of the municipal golf course.
- R. Develop areas for multi-purpose use (PG&E right-of-way and park, Marina Lagoon for recreation and storm protection, etc.).

3. GOALS OF THE SHORELINE PARK SPECIFIC PLAN

Major goals of the Shoreline Plan were developed in November, 1968. They are incorporated in the following expanded list of goals:

- A. The establishment of a waterfront development usable by all the people in San Mateo.
- B. The establishment of a variety of uses so all types of needs, interests, and activities will be accommodated.
- C. Maintain a safe dike.
- D. Provide for adequate flood control.
- E. The establishment of protected waterways.
- F. The establishment of as much open space as possible.
- G. Development at the lowest possible cost to the taxpayer.
- H. The reduction of bay fill to an absolute minimum.
- I. Establishment of a final boundary to prevent any further development on the bay shore.

4. FINDINGS

- A. The City of San Mateo is deficient in citywide park space.
- B. The existing refuse disposal area is not part of a County solid waste disposal plan and will be phased out.
- C. Most of the City waterfront is inaccessible; the only accessible open beaches are at Coyote Point and Marina Lagoon.
- D. Existing embankments and dikes are unattractive and uninviting.
- E. Over 300 acres of mudflat are exposed at zero tide; little or none of this area is intended for recreational boating.
- F. Natural silting and sedimentation are continuing to fill the shallows along the San Mateo waterfront and sections of Marina Lagoon.
- G. Present conditions are greatly different from a natural estuarine environment.
- H. PG&E may permit recreational use of its right-of-way. Property ownership yet to be determined.

I. Marina Lagoon is inaccessible from San Francisco Bay.

J. Shoreline improvement is needed to create a usable waterfront.

5. DEVELOPMENT CONCEPTS

A. Improvements of existing land for parks and recreational uses.

B. Redevelopment of existing refuse disposal area as a Bayfront recreation area.

C. Limited filling to improve shoreline appearance and provide new public access to the waterfront.

D. Private development of water-oriented commercial recreation.

E. Establish marshland growth.

F. Cluster marine activities near boating areas.

G. Conduct research and field tests to determine ways and means to establish new marshland.

H. Continued improvement of property west of existing dike.

I. Approval of the design concept for the Shoreline Park Specific Plan.

J. Maintenance of a safe dike.

K. Increase of pumping capacity in Marina Lagoon.

III. SUMMARY OF THE SHORELINE PARK PLAN

1. GENERAL

The San Mateo Shoreline Park planning area covers approximately 885 acres of land. Within this area there are 675 acres of dry land at high tide. Marina Lagoon accounts for 210 acres.

511 acres of land will be used for park and recreation purposes and one acre near the Marina Lagoon dam will be for expansion of the treatment plant. Including the Coyote Point Marina, the plan provides 7.4 miles of shoreline and provides for continuous public access to cover 2.9 miles of open beach and marina. Sloping fill along the bay side of the steep dike and along the north side of the dump will improve shoreline appearance and provide new public access. A bike and pedestrian system will facilitate movement through the park and will connect to other such systems in adjacent areas.

The major classifications of land use are park and recreation, marine commercial, commercial recreation and public (meaning public facilities such as the wastewater treatment plant and public streets).

TABLE I
LAND USE SUMMARY

<u>Area and Land Use</u>	<u>Area (Acres)</u>
AREA 1 - Shoreland	
Public Parks and Recreation Uses	
Coyote Point Park/Marina	307
Golf Course	105
Bayside Park/PG&E Right-of-way	23
Private Uses	<u>47</u>
	482
AREA 2 - Seal Point	
Public Parks and Recreation Uses	52
AREA 3 - Seal Cove	
Public Parks and Recreation	9
Mouth of Seal Slough	9
Public Facility	12
Private Uses	<u>60</u>
	90
AREA 4 - Marina Lagoon	
Public Parks and Recreation Uses	
Parks	8
Marina Lagoon	<u>210</u>
	218
AREA 5 - San Mateo Creek	
Public Parks and Recreation Uses	7
Private Uses	<u>7</u>
	14
STREETS	<u>29</u>
TOTAL AREA	885*

* All acreage figures are approximate

2. AREA SUMMARY

Area 1 - Shoreland lies between Burlingame and San Mateo Creek. It is composed of Coyote Point Regional Park and a linear park paralleling the bayfront dike between Coyote Point and San Mateo Creek.

Area 2 - Seal Point includes all of the San Mateo solid waste disposal site and the PG&E right-of-way east of Third Avenue between San Mateo Creek and Marina Lagoon. The area is proposed as a public park area, including water-oriented commercial uses located on the eastern periphery of the existing land mass. It is proposed that Third Avenue be widened to provide for through and local traffic. This street is proposed to be treated as a scenic highway appropriate to the area. At the base of Seal Point is a registered shellfish bed.

Area 3 - Seal Cove comprises the mouth of Marina Lagoon east of Third Avenue and the park area between marina Lagoon and City limits. On the south side of Third Avenue, it includes the land in the vicinity of Detroit Drive and Anchor Road. A variety of public uses are proposed, including a City park, conservation of marsh areas, the Water Quality Control Plant, a dredged channel to deep water, trails, a new pumping station, and other public improvements.

Area 4 - Marina Lagoon encompasses the remainder of Marina Lagoon south of the dam. Marina Lagoon will receive improvements which will enhance its function as a recreation/storm drainage facility. Public access will be required where abutting land is still vacant and other areas, where feasible.

Area 5 - San Mateo Creek requires improvements to increase its storm water runoff capacity. Segments are suitable for linear park development and pedestrian and bicycle connections; a dredged channel (about 4 feet deep) may be required to deep water for purposes of better drainage. There exists historical records of Indian Shell Mounds along portions of San Mateo Creek.

IV. RELATIONSHIP TO OTHER PLANS

1. PARKS AND RECREATION ELEMENT

This element of the General Plan lists a series of general goals and policies for parks and recreation. Among the nine stated goals, two have particular reference to the Shoreline Park Plan:

- Provide adequate, readily accessible space and facilities to serve the recreation needs of all the citizens of San Mateo.
- Balance conservation, preservation, and development in creating a usable waterfront.

These general goals are amplified by a number of more specific policies.

- Develop large citywide parks on the edge of the City where large areas of land are available at a relatively low cost.

- While priority will be given to acquisition over full development, areas already available must be developed and utilized according to the park and recreational needs of the citizens of San Mateo.
- Emphasize maximum public use of the waterfront area consistent with preserving the natural open space, wildlife and plant life, and assure perpetual citizen access to the bay. Develop a plan for the entire shoreline between the north and south City limits.
- Preserve, enhance, and improve our creek sides and drainage channels for parks and wildlife areas providing public access where feasible.
- Utilize public easements and residual public properties for park and recreational development.
- Limit bay fill to areas for park and recreational facilities. Permit private development of bayfront only where the public will obtain free park and recreational facilities and where highest standards of aesthetics are maintained. Any such development should not mar the view or disturb the natural beauty of the shoreline and must conserve and enhance the ecology of the bay.

2. ENVIRONMENTAL RESOURCES MANAGEMENT ELEMENT (ERME)

The City's ERME takes a comprehensive view of development, and of the natural and man-made constraints and opportunities affecting the City's future. The Shoreline Park Plan is affected by a series of objectives and policies of ERME.

A. Natural Resources Policies:

- Establish guidelines which will allow development while preserving significant trees and other natural vegetation.
- Improve the quality of San Mateo's water resources by upgrading the water quality and bodies of water over which the City has control, and require private development adjacent to water to provide public access.
- Develop the potential of Marina Lagoon to serve as a recreation facility, wildlife area, and drainage basin.
- Upgrade wastewater treatment facilities to improve the quality of receiving waters and allow for reuse of wastewater.
- Look upon drainage channels as potential recreation and scenic resources and require improvement to take multiple use into account.
- Maintain development patterns which allow for the continued existence and viability of wildlife.
- Explore the feasibility of preserving the few remaining wildlife habitats.

B. Urban Resources Policies

- Designate streets of significant scenic value as scenic highways and develop programs which will maintain or enhance their scenic quality.

- Designate scenic corridors and establish regulations to maintain the quality of scenic roads.
- Acquire and develop the open space areas delineated in the Parks and Recreation element, with emphasis on sites with significant environmental qualities.

C. Urban Development Constraints Policies

- Develop measures which will reduce the risk to human life and property resulting from flooding.

3. BAY CONSERVATION AND DEVELOPMENT COMMISSION

Among plans and policies which affect the Shoreline Park Plan concept, the BCDC plan ranks among the most significant; it contains a series of policies which will affect San Mateo. As was noted earlier, Park Plan concept, the BCDC plan ranks among the most significant; it contains a series of policies which will affect San Mateo. As was noted earlier, the Shoreline Park Plan was prepared to be consistent with BCDC policies.

4. CIRCULATION ELEMENT

This element of the General Plan includes a Circulation System. The Shoreline Park Plan is affected by the following portions of the Circulation System as adopted in the Circulation Element:

- East Third Avenue, Norfolk to east city limits — widen street to four lanes.
- Third Avenue is classified as an Arterial from Crystal Springs Road to the east city limit.
- Third Avenue as a scenic highway appropriate to the area can be achieved more easily through proper planning and development regulations.

V. SAN MATEO SHORELINE PARK

1. AREA 1 — SHORELAND/COYOTE POINT PARK

A. Existing Conditions

The Bayfront Dike is located about 200 feet away from developed residential lots. The intervening land is unimproved except for the PG&E transmission tower lines. It is low-lying meadow with a drainage ditch along the back side of the dike from which water is pumped into the Bay. There are 5 PG&E tower lines and space to add two more. PG&E tower lines form a 500 foot wide band along the shoreline. The City of San Mateo has easements and grants covering the dike and outboard wetlands and marshes.

Coyote Point Park is a County-owned regional park and recreation facility.

B. Improvements and Recreational Opportunities

- Expansion of Bayside Park and Ryder Park, including parking facilities.
- Storm water retention reservoir, water channel and storage ponds; water system designed to allow the reuse of wastewater from the Water Quality Control Plant. Reservoir to be located on Municipal Golf Course.
- Preservation of existing marsh and restoration of shore areas by creating new marshlands, including San Mateo Creek.
- Service road and bike path on top of dike; parking areas in Coyote Point area and southern section (potentially on existing dump site with a small bridge for pedestrians) and at Ryder Park.
- Maintenance of existing dike.
- Additional storm drain pumps at Poplar Avenue pump station.
- Landscaped mounds and sheltered picnic areas.
- Redevelopment of Coyote Point Park, and expansion of Marina.
- Community involvement in experimental studies and park improvement projects.
- Beach overlooking sheltered cove in lee of Coyote Point Marina.
- Pedestrian walks over/along marsh areas along shoreline for conservation education.
- Accessible open areas for hiking and fishing.
- Adventure playground for unstructured play from available materials.
- Nature park area with meandering stream and ponds.
- Bikeways and trails throughout the Shoreline Park, including the Bayfront Dike.

- Planning, maintaining and using the system
- Control work and maintenance of the system
- Safety and security of the system
- Maintenance of the system

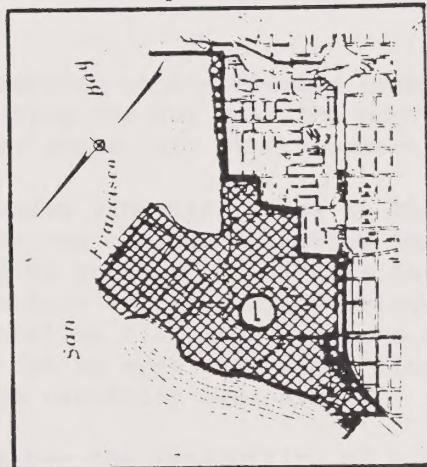
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- Picnicking, sightseeing, and passive recreation.
- Formal park and recreation areas/facilities in Ryder-Bayside parks vicinity. Passive/natural park use of remaining area.
- Delete second access (Poplar Avenue) to Coyote Point Park.
- Pedestrian access between Coyote Point and the Shoreland area.

2. AREA 2 — SEAL POINT

A. Existing Conditions

PG&E property along the north side of East Third Avenue has five tower lines with a 430 foot wide unimproved strip. The remaining land is used for disposal of solid waste by sanitary land fill. Steep inaccessible embankment slopes have been protected by concrete rubble and unattractive debris.

B. Improvements and Recreational Opportunities

- Redevelopment of refuse area into a park with landscaped picnic areas.
- Vehicular access and parking areas located away from shoreline.
- Embankment grading and protection to create public access bike-hike trail along water's edge.
- Public facilities to service water-oriented commercial recreation establishments overlooking the Bay near the northeast corner for restaurants, speciality shops, and other commercial water-oriented uses.
- East Third Avenue provides singular access to the Shoreline Park area. For many years the City has considered making improvements to this arterial. An EIR will be prepared to discuss the impacts of these improvements, which include scenic parkway design considerations and new bridges within the Shoreline Plan Area. Before a firm commitment to proceed with widening can be made, all significant impacts identified in the EIR will have to be carefully evaluated.
- Planning study to consider the feasibility of a dredged channel for San Mateo Creek and Marina Lagoon outfall to facilitate water runoff.
- Field sports and games on open fields.
- Sheltered picnic areas and scenic overlooks.
- Bikeways, trails, and vista points.
- Eating, lodging and shopping at commercial recreation establishments.

2. SUMMARY OF FINDINGS

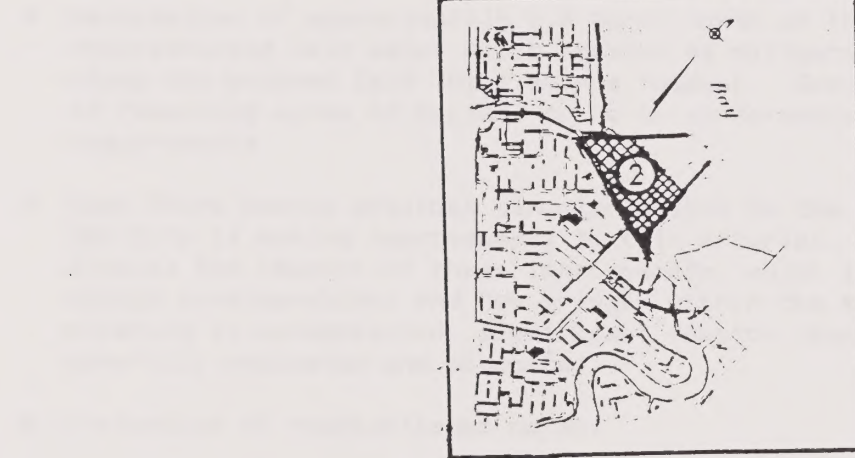
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3. AREA 3 — SEAL COVE

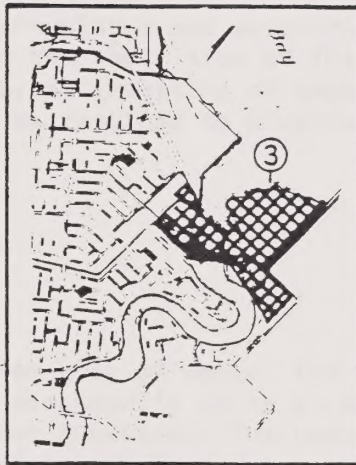
A. Existing Conditions

Consists of the mouth of Marina Lagoon and adjacent lands. Its natural qualities include both fresh water and salt water marsh. A dam blocks Marina Lagoon and allows control of the water level in the Lagoon. The City's Water Quality Control Plan is located at the southwestern end of Detroit Drive.

The shallow tideland area is mudflat at zero tide. The low-lying diked area outboard of Third Avenue is within the Estero Municipal Improvement District and is nearly inaccessible.

B. Improvements and Recreational Opportunities

- Development of new marsh areas north and south of Marina Lagoon, near Third Avenue; protection, enhancement, and expansion of existing marsh areas.
- Linear park along water's edge, including bikeways and trails, fishing spots, and parking areas where desirable and necessary.
- Designation of approximately 1.8 acres north of Third Avenue as a reconstructed salt water marsh created as mitigation for lost habitat along the widened East Third Avenue roadway. Designation of approximately 48 remaining acres of bayland to be in conformance with Public Trust requirements.
- East Third Avenue provides singular access to the Shoreline Park area. The City is making improvements to this arterial. An EIR is certified to discuss the impacts of these improvements, which include scenic parkway design considerations and new bridges within the Shoreline Plan Area. As widening is accomplished, significant impacts identified in the EIR are carefully evaluated and mitigated.
- Protection of reestablished marsh.
- Conversion of existing pump station into a restroom/self-guided interpretive center.
- Restrict use of island in Marina Lagoon to a natural bird sanctuary.
- Construction of new storm drainage pumping station.
- Prepare a planning study to consider a new outflow channel toward mid-bay.
- Preservation of existing natural vegetation and provision for new planting.
- Public access to the water's edge.
- Development of bicycle and pedestrian paths.
- Park improvements for public parks and recreation purposes.
- Wildlife observation areas.
- Foot paths for nature walks.



- Self-guided interpretive center for marine and wildlife educational value.
- Park for field sports and other active recreational activities.
- Water-oriented commercial recreation establishments.
- Nature study; bird watching, other observer activities of natural marsh areas.
- Natural area for passive recreation.
- Boat building.
- Picnicking.
- Fishing.
- Biking; hiking.
- Rowing, canoeing, sailing, and waterskiing in some parts of the Lagoon.
- Active and passive recreation.
- Marine commercial, water-related and water-compatible uses on private lands near the water on the south side of Third Avenue; appropriateness of uses to be determined by desirability of impacts of uses on surrounding area. New streets may be required to provide adequate and safe circulation.

4. AREA 4 — MARINA LAGOON

A. Existing Conditions

Marina Lagoon is a controlled body of water, the prime purpose of which is storm water retention, and secondarily it is a recreation facility with a potential for increasing that function. The Lagoon is about 4.2 miles long and varies in width from 200 to 800 feet.

An earth dam on its north boundary separates Marina Lagoon from San Francisco Bay, and allows control of the water level within the Lagoon. Flushing is accomplished through tide gates at the south end, and either gravity flow or pumped flow out through the dam at the north.

B. Improvements and Recreational Opportunities

- Maintenance of adequate capacity and desirable elevation through dredging.
- Increased flood protection of Lagoon through upgraded pumping capacity at the north end and develop a planning study to consider a dredged channel at the south end.
- Development of linear park/public access along Marina Lagoon concurrent with development of vacant land.

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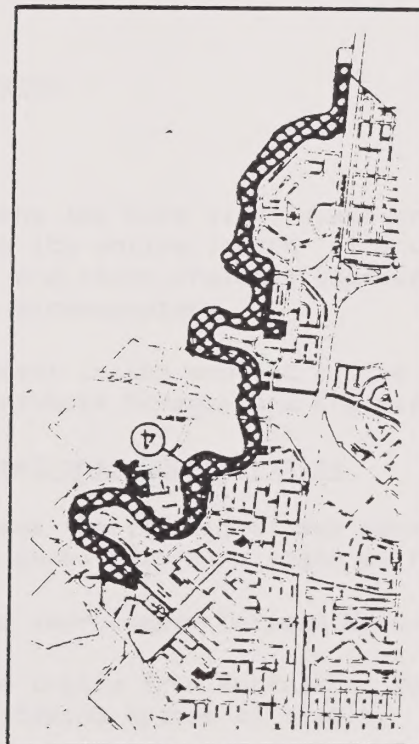
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- Development of water-oriented parks and recreation facilities in City parks abutting the Lagoon.
- Programs to increase water quality.
- Bikeways and trails along the Lagoon, when feasible, with connections to citywide bikeways and trail systems.
- Boating in Marina Lagoon, including sailing, rowing, canoeing, power boating, and waterskiing.
- Recreation and educational programs related to water sports (sailing lessons, etc.).
- Hiking, and biking along Lagoon, including sightseeing.
- Nature observation.
- Fishing.
- Formal parks and recreation facilities and programs in City parks and community centers.

5. AREA 5 — SAN MATEO CREEK

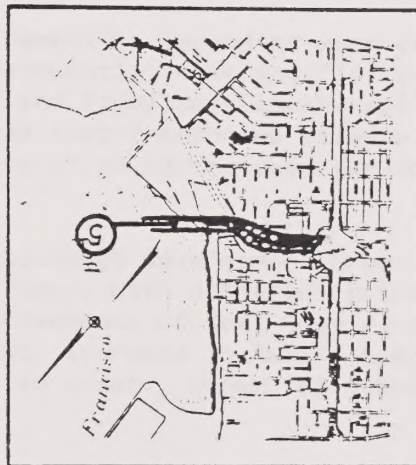
A. Existing Conditions

San Mateo Creek counts among the more significant creeks in the City. It has not been channelized along its entire length: its water-carrying capacity is, therefore, not sufficient and storm drainage improvements will be required if a 100-year storm is to be accommodated.

Discussion of San Mateo Creek in the context of the Shoreline plan is limited to the area between the Bayshore Freeway and the Bay.

B. Improvements and Recreational Opportunities

- Improvement, to increase the storm drainage capacity consistent with maintaining the creek in as natural a state as feasible.
- Linear park design and improvement between Norfolk Avenue and the Bay.
- Pedestrian and bicycle trails from Norfolk to Shoreline Park, including connection with the citywide system of trails.
- East Third Avenue provides singular access to the Shoreline Park area. For many years the City has considered making improvements to this arterial. An EIR will be prepared to discuss the impacts of these improvements, which include scenic parkway design considerations and now bridges within the Shoreline Plan Area. Before a firm commitment to proceed with widening can be made, all significant impacts identified in the EIR will have to be carefully evaluated.
- Hiking, bicycling along the creek, pedestrian/bike connection with other areas.



- Sitting areas, nature observation.
- Fishing.
- Preservation of existing marsh and restoration of shore areas by creating new marshland.

VI. IMPROVEMENT PROGRAM

1. STAGES OF IMPROVEMENT

Five (5) Shoreline Plan areas have been identified. The improvement and development of one is not necessarily dependent on the others, although certain desirable sequences exist. Development of each area depends upon an urgency resulting from safety concerns, or upon the occurrence of certain events (such as closing the dump) or upon the availability of funds.

The general approach to design and development of the bayfront is to design a Shoreline Park Plan which represents a coordinated plan for the area, one which has the potential to be realized in several sequences.

Area 1 (Shoreland) improvements will require use of less than two acres of offshore area and agreements with PG&E. Citizens will be able to participate in improving the nature park located west of the dike which include both the active and passive recreation areas.

Area 2 (Seal Point) development is dependent upon cessation of the sanitary landfill operations. Subsequently, covering fill can be placed and prepared for landscaping. Further and final development will depend upon availability of funds; it is anticipated that franchised private commercial operations will return revenues to the City which can be used for ongoing park improvement programs.

Area 3 (Seal Cove) can anticipate development programs for different aspects of the area at different times, with different priorities. The City has scheduled substantial improvements of Seal Cove — a multi-million dollar water quality control plant, increase in Marina Lagoon pumping capacity, bicycle paths and recreation areas. Other improvements must await availability of funds.

Area 4 (Marina Lagoon) includes the entirety of Marina Lagoon behind the dam. Improvements will occur over many years, including the immediate as well as the distant future. Many public facilities and functions relate to the Lagoon; consequently, numerous projects can be carried out. These include Lagoon maintenance and work to upgrade storm water retention. Other programs include upgrading and maintenance of existing park and recreation facilities. Private developments along the Lagoon will be responsible for the final design and improvement of the banks, including provision and installation of public access along the Lagoon, as well as certain other park and recreation facilities. Public safety will be a major concern along areas of public access to the Lagoon.

Area 5 (San Mateo Creek) could be improved at any time, given sufficient funding. Depending on the scope of the project, residential developments of vacant land can be required to share in the improvement of San Mateo Creek for increased storm runoff capacity, and recreational purposes. The major public cost will be the eventual reconstruction of Third Avenue into a scenic highway.

2. IMPLEMENTATION

Adequate engineering and design studies will be required for excavations, dredging, foundations, embankment fills and structures to insure construction in accordance with safety standards. In addition, fill materials and the methods and locations for disposal of bay mud must satisfy water quality control board performance specifications.

Architectural design standards will be employed to specify the type, bulk and height of buildings and site development requirements for commercial recreation establishments. Special permit procedures shall be required for private developments within the Shoreline Park boundary.

The City of San Mateo will coordinate improvements within the present city limits with the County of San Mateo and Foster City. City staff will work directly with the staffs of other affected agencies; BCDC, the Corps of Engineers, Water Quality Control Board, State Lands Commission and other State agencies, Foster City and the Estero Municipal Improvement District, the San Mateo County Harbor District, the various County departments, and with PG&E, Westbay, affected property owners, and other agencies and individuals.

In order to gain revenue from public land, leaseholds and franchise agreements can be negotiated for private operators to build restaurants, specialty shops and other acceptable commercial recreation establishments. Other sources of revenue are retail sales tax, property taxes, business license fees and transient room taxes. All possible means of financing Shoreline Park improvements will be explored.

Property acquisitions and easements will be required for public improvements on private property and where needed to permit fill for new public park areas, and to establish marshland and areas for recreational boating and navigation channels.

VII. DESIGN CONSIDERATIONS

1. Major Constraints

Existing physical conditions and development policies for the future limit the courses of action with the Shoreline Park Plan. Listed below are a series of major constraints which must be acknowledged in the development of this specific plan, and which must be considered in specific project plans and studies.

A. Constraints

Adopted San Francisco Bay Plan.
BCDC Regulations.
Coyote Point Regional Park.
Coyote Point Marina Expansion.
Municipal Golf Course and Clubhouse.
PG&E Substation.
Five PG&E high-voltage transmission lines and space for two future lines.
Substandard freeway interchange at Peninsula Avenue and Bayshore.
Only five storm drainage pump stations.
Marina Lagoon is a storm water retention reservoir.
Outlets works on Seal Cove, Corps of Engineers.
Water Quality Control Board.
54" wastewater outfall line in outlet dike.
San Mateo Creek drainage.
Marina Lagoon drainage.
Decreasing yield from golf course wells and water becoming increasingly brackish.
Another jurisdiction east of city limits.
Wind direction and aircraft approach to San Francisco Airport.
San Francisco Bay Regional Water Quality Control Board jurisdiction.
Deep bay mud.
Tidal currents.
Existing shoals and shallows.
Existing urban development on the adjacent property is predominantly single-family residential.
State Grant restrictions.

B. Impacts

Local parties must be consistent.
Improvement permits are required.
Coordination with County Park Department.
Change in tidal action.
Fixed land use.
Fixed land uses and undeveloped space for expansion.
Limits locations of structures and type of land use — aesthetics.
Poor circulation to Coyote Point.
Upgrade capacity to remove flood hazard.
Requires periodic flushing to maintain water quality. Must dredge outlet channel to discharge from Marina Lagoon.
Permit required for activities, required lengthy processing.
Requires emergency discharge outlet into Bay.
Difficult and expensive to relocate.
Maintain outlet channel for storm water.
Require assured supply of irrigation water.
Coordinate on-shore improvements and off-shore channel with Foster City.
Establish flight patterns and aircraft noise.
Regulate water pollution and waste disposal into Bay.
Difficult foundation conditions.
Sedimentation in shallows.
Inhibit boating and water outflow.
Requires consideration of relationships of park to adjacent residential areas—buffers, screening, compatibility requirements.
Land uses must be compatible with the public trust of commerce, navigation, and fisheries (Chapter 1099 Statutes of 1976).

2. PG&E REQUIREMENTS

A substantial area of the Shoreline Park consists of PG&E transmission lines right-of-way. While the ground may be available for park development, PG&E has certain requirements to ensure the safety and reliability of its power transmission system. Below are listed some of the basic operating requirements of PG&E.

- A. Buildings or other similar structures should be constructed outside the boundary lines of right-of-way.
- B. Ultimate park design should provide for continuous road access to all towers within project boundary lines.
- C. A minimum ground-to-conductor clearance of 30 feet as set forth by General Order 95 of the Public Utilities Commission will have to be maintained throughout the development.
- D. Planting and general landscaping which will not interfere with the maintenance or operations of the lines within the right-of-way would be permissible. However, based on the data available the height of such planting and landscaping would be limited to a maximum of 15 feet at maturity. It is possible, however, that as development plans progress, a detailed planting scheme which would provide for higher growing species at certain locations throughout the project could be worked out.
- E. Additional power lines may be located within the right-of-way for which engineering criteria have not been formulated and it is not certain where structures might be located. It is essential to retain flexibility for future construction in order to preserve the long-term usefulness of the right-of-way; however, a satisfactory agreement can be worked out so this issue will not be an obstacle to the development of detailed plans.
- F. Tower footings must be upgraded in fill areas.

The PG&E transmission lines and substation perform a necessary function but are a very visible and limiting feature on the Shoreline Park.

While it is possible to design the Shoreline Park in compatibility with PG&E requirements, the ultimate solution to this aesthetic and physical constraint is the undergrounding of the lines. While the current technology to undergrounding these high-voltage transmission lines in bayfront lands appears to lack economic feasibility, it may be realized in the future.

The City, PG&E, Corps of Engineers, BCDC, the State Public Utilities Commission, and the Federal Power Commission most likely would be the major agencies involved in the project. The City and PG&E have successfully completed a number of simpler undergrounding programs. The size, complexity and potential region-wide impact of this project would necessitate the assistance of an inter-agency approach at the Local, State and Federal levels so that this project can be integrated with the overall bayfront development and provisions can be made in other projects to accommodate future undergrounding.

3. FOUNDATION PROBLEMS

Bay mud presents difficult and expensive construction problems. It is a poor foundation material because of its low strength and high compressibility. Safe embankment fills and structural foundations will require thorough investigation of the underlying materials. Competent exploration and material testing will be needed. Qualified professionals will be engaged to prepare safe foundation designs and to see that they are followed by careful construction.

4. PROPERTY OWNERSHIP

Much of the land in the Shoreline park Area is currently in public ownership (e.g., Coyote Point Park, Marina Lagoon, and Mariner's Island Park). In addition to those lands, the City of San Mateo also has a claim of public ownership to tidelands, submerged lands, and marshlands by virtue of a 1976 grant by the State legislature (Chapter 1099 Statutes of 1976). The competing claims of ownership by private parties are expected to be resolved within the next few years.

It is anticipated, however, that even if the competing claims of ownership should be resolved in favor of private parties, agreements can still be negotiated to permit use of their property as a park site so long as the existing transmission lines are operational.

The need for public expenditures for land acquisitions to meet the Shoreline Plan goals will be minimized as a result of the following: 1) existing public ownership, 2) expanded claims of public ownership resulting from the 1976 amendments to the 1933 legislative grant, and 3) agreements for joint public and private use of shoreline lands.

5. ENVIRONMENTAL CONSIDERATIONS

The Shoreline Park Specific Plan is intended to be implemented in a method consistent with the environmental significance of the area, and cognizant of the needs of the people of the community. The bayfront area has been severely altered from its natural state. Because of this, it may be necessary to perform engineering modifications to achieve the goals stated at the outset of the report. For example, it may be necessary to place some fill to establish new salt marshes, and to fill or modify land areas at the boundary of the dump site to make it usable and establish a definite boundary between water and land.

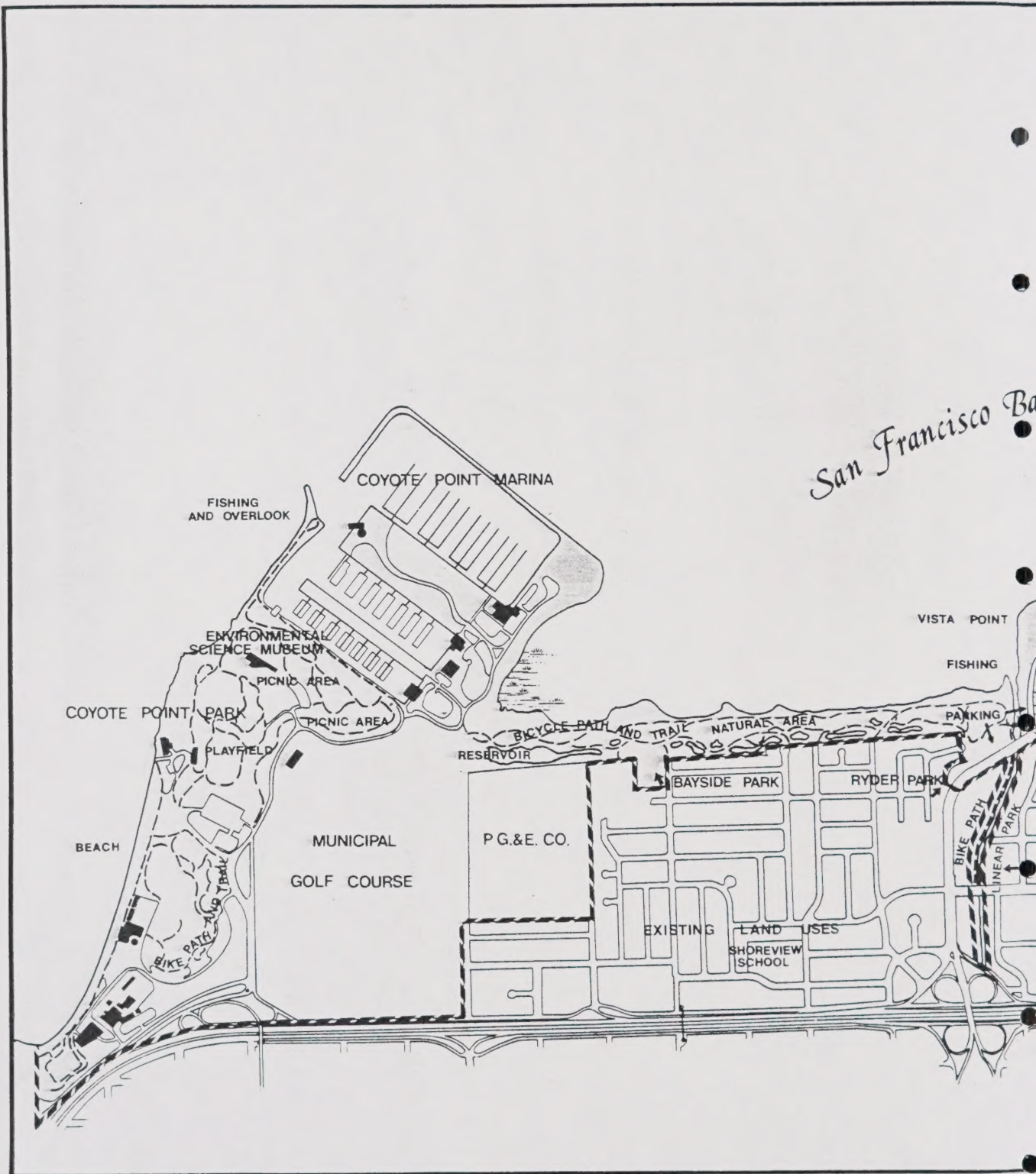
Continued studies and evaluation of each phase of improvement will be undertaken to ensure that alternatives and courses of action are consistent with the goals and objectives of the Plan, and in balance with the human and natural aspects of the area.

VIII. INTEGRATED DEVELOPMENT APPROACH

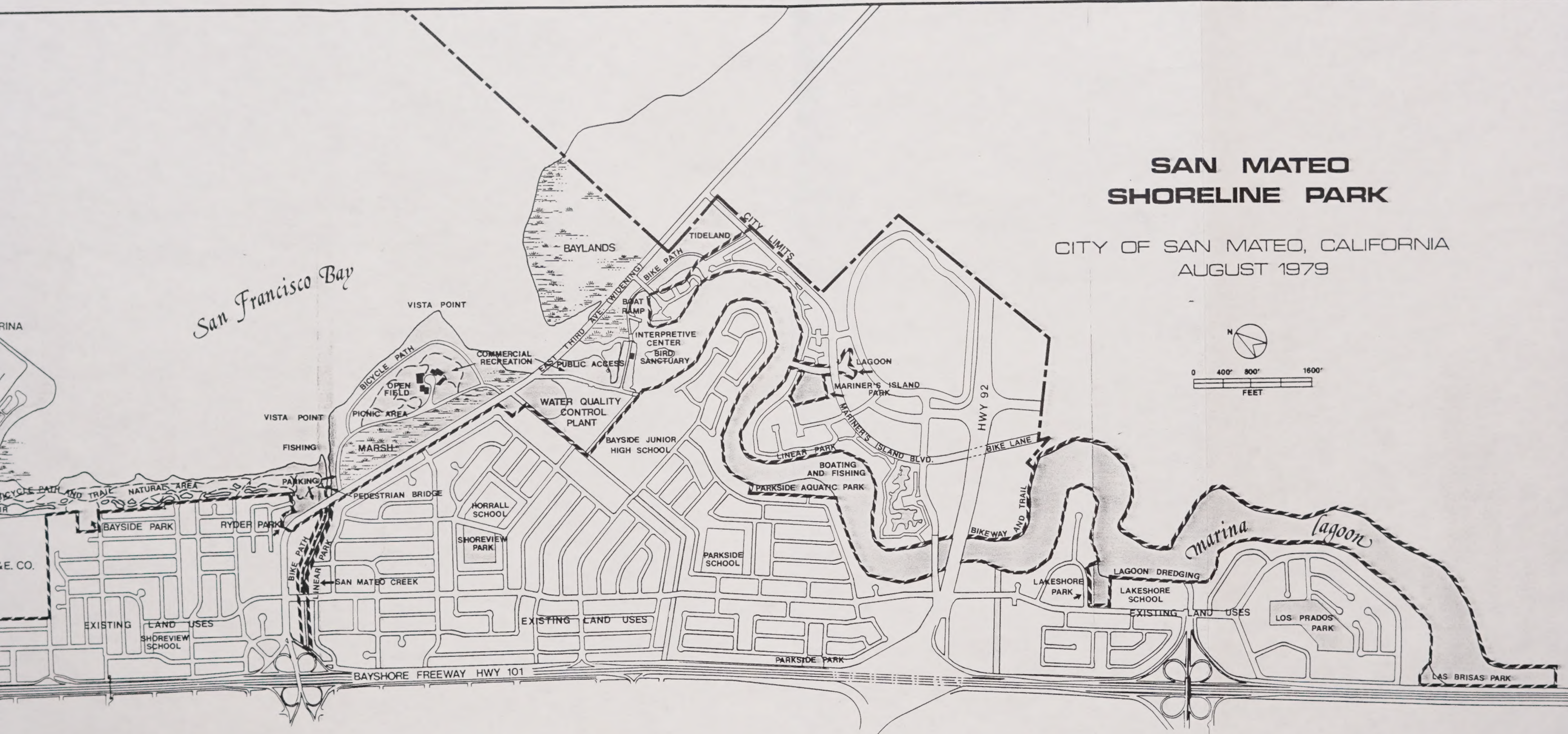
Over the years, San Mateo has come to realize that public projects, whether they be streets, parks, affirmative action, or community development programs, can no longer be dealt with as single purpose projects. In addition, they tend to be affected by jurisdictions other than the City. Federal and State requirements on water quality control, environmental protection, transportation, funding, flood control planning and related planning and development functions have made it necessary to provide comprehensive programming; this has also tended to lengthen the planning and program sequence.

Other levels of government have recognized the difficulties involved in comprehensive community development and during the past several years have developed a more comprehensive approach to grant programs. Historically, the vast array of Federal categorical grant-in-aid programs provided fragmented solutions that fell short of potential maximum benefits. Frequently, a local government had to splinter its municipal operations to qualify for such funds, or, in the extreme, restructure a problem to qualify for a grant. By addressing itself to subordinate levels within the city (Planning, Public Works, etc.) the grant program would frustrate comprehensive problem-solving by the chief executive and council of the municipality. An ancillary frustration has also been the inordinate portion of grant funds diverted to individual grant overhead costs instead of being applied to solving the problem.

A more comprehensive plan and grant approach will allow San Mateo to continue with the Federal and State funded components of the Bayfront Project on an integrated basis, and to extend this approach through non-Federal aspects of the project. The resultant single point of funding control, project monitoring, and reporting (as well as the simplified grant approach process and the knowledge that continued funding to completion of all project components is more likely) should lead to a greatly simplified and very efficient project, from both an administrative and an operational point of view.

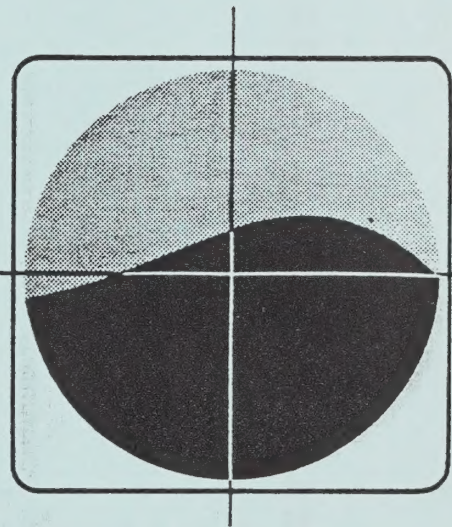


CITY OF SAN MATEO, CALIFORNIA
AUGUST 1979



SUGARLOAF

- GENERAL PLAN
- SPECIFIC PLAN
- DRAFT E.I.R.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT • PLANNING DIVISION • SAN MATEO COUNTY • CALIFORNIA
and the COMMUNITY DEVELOPMENT DEPARTMENT • CITY OF SAN MATEO • CALIFORNIA • DECEMBER 1977

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OPEN SPACE PLAN

CIRCULATION PLAN

FACILITIES AND SERVICES PLAN

SPECIFIC PLAN

ILLUSTRATIVE LAND USE

GRADING PLAN

GRADING SECTIONS

GRADING SCHEDULE

ARCHITECTURAL SCHEMATICS

BUILDING LOCATION

APPEARANCE OF DEVELOPMENT

TOWNHOUSE CLUSTER

DRAINAGE AND UTILITIES

ROAD, CIRCULATION AND PARKING

OPEN SPACE AND LANDSCAPING

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IMPACT SUMMARY

SLOPE

GEOLOGIC FACTIONS

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BIOTA

VIEWSHED

EXISTING TRAFFIC FLOW

TRAFFIC DISTRIBUTION

ATTRACTED TRAFFIC

PROJECT GENERATED TRAFFIC

1990 NOISE

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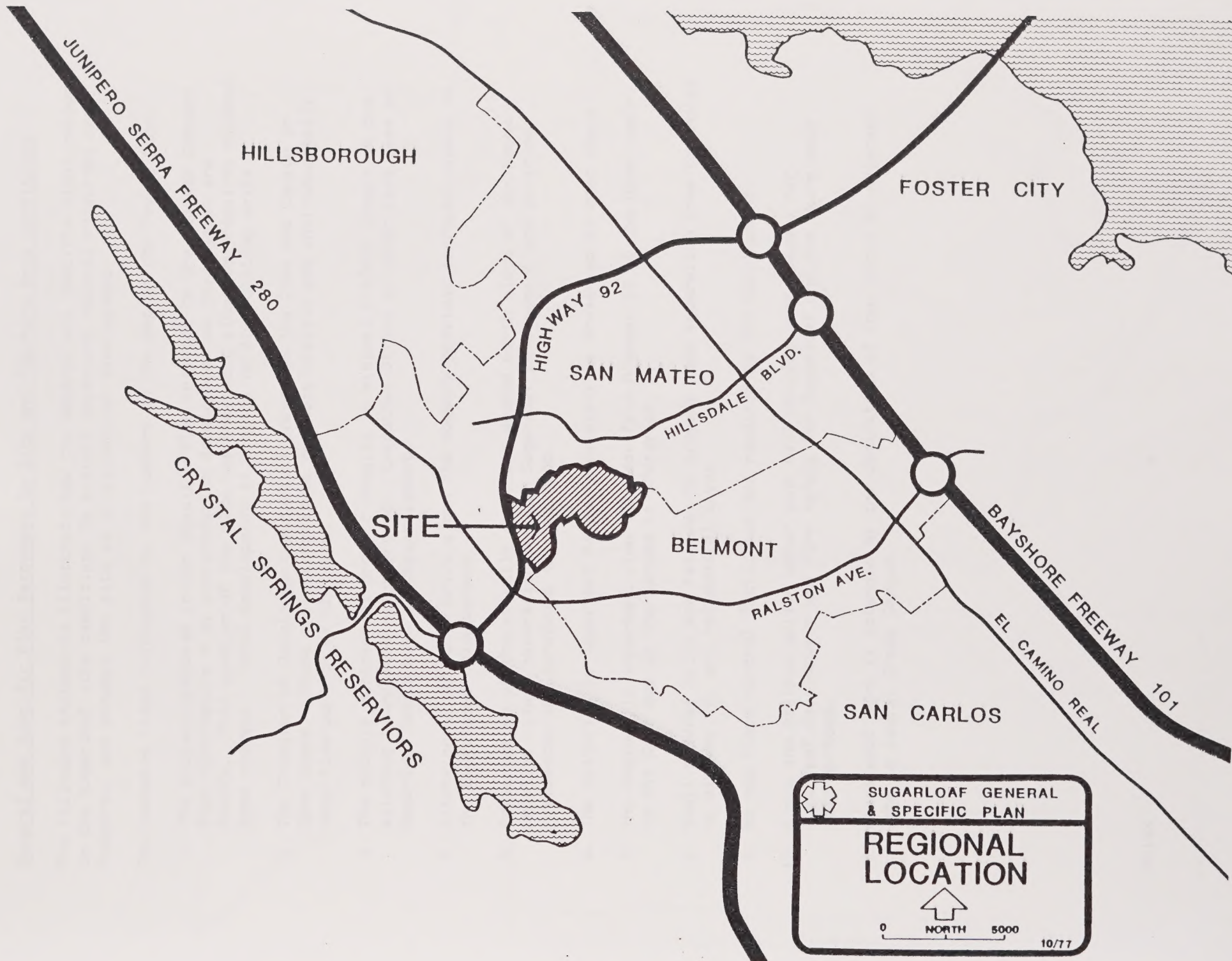
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AMOUNT OF GRADING

TREE REMOVAL

ENVIRONMENTAL IMPACT REPORT

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TABLE III:	CLIMATIC CONDITIONS.
TABLE IV:	INCOME, HOUSING VALUE.
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 SUGARLOAF GENERAL
& SPECIFIC PLAN

**REGIONAL
LOCATION**


0 NORTH 5000

10/77

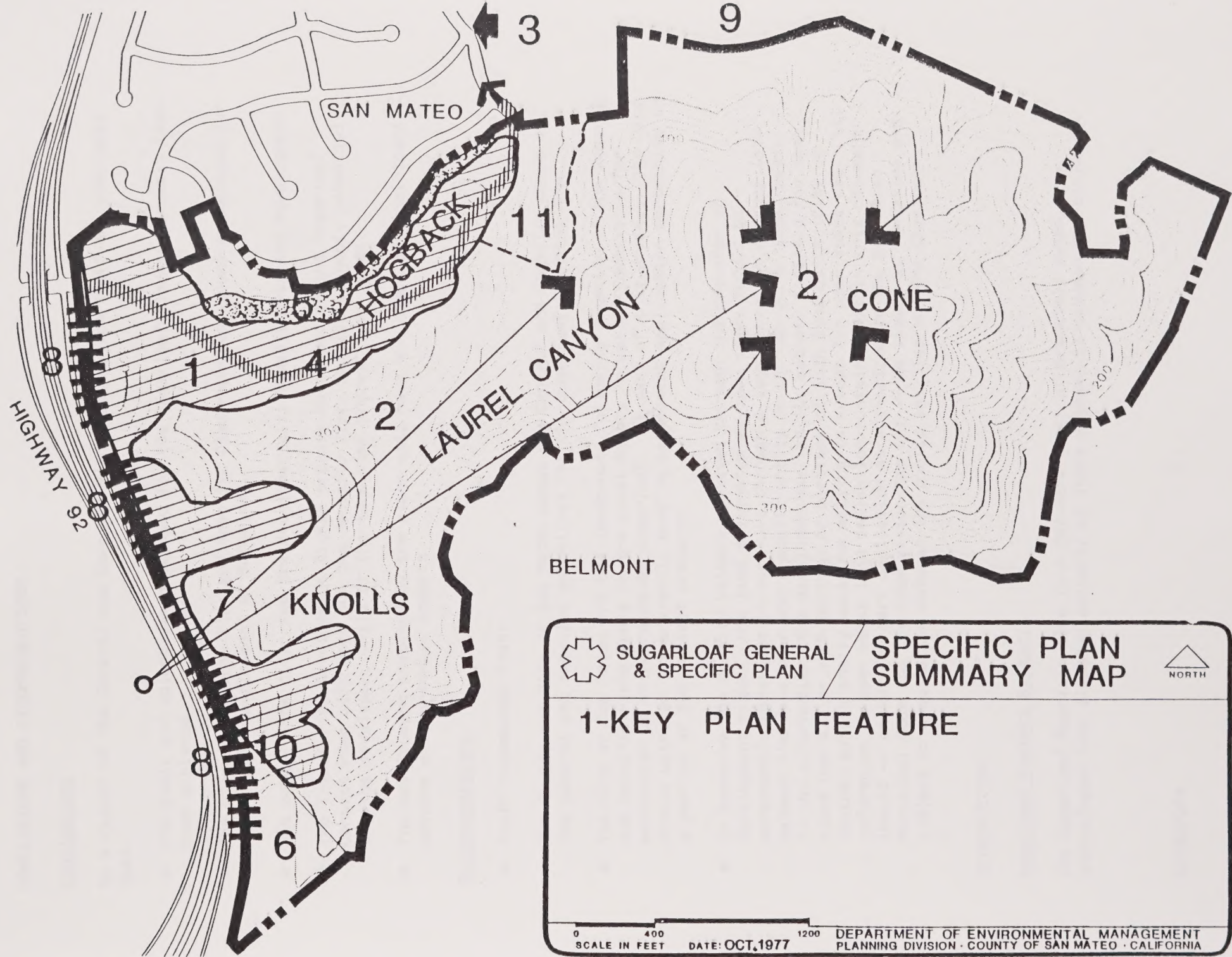
PLAN RESPONSES TO SITE CONDITIONS

General and Specific Plan Responses to Site and Planning Area Conditions

The following statements illustrate how the General and Specific Plans respond to the Sugarloaf site conditions to protect important natural resources and features, and enhance the site as a residential development.

The numbered items correspond to the numbers on the map on the facing page.

1. The project proposed in the Specific Plan responds to the adopted Concept Plan Alternative A by concentrating development on the Hogback and Knolls. This portion of the site has the least slope and requires minimal tree removal. Total development is limited to 316 dwelling units.
2. The Transfer of Development potential preserves the Cone and Canyon in Open Space. These areas constitute the most visible and environmentally sensitive portion of the site.
3. The totally residential project results in minimal traffic impact on the existing Laurelwood neighborhood. Executive Office or other Land Uses on Sugarloaf would have a greater impact.
4. Extension of Glendora Drive along the Hogback provides improved access to the Laurelwood neighborhood.
5. Preservation of the visually prominent wooded north slope of the Hogback provides visual separation between Sugarloaf development and existing residences in Laurelwood neighborhood.
6. The historically important Pauper's Cemetery is preserved as open space.
7. The regionally important view corridor from Highway 92 to the Open space on the Cone and in the Canyon is preserved.
8. Small natural hills are retained to provide some separation from the noise on Highway 92, and residential areas.
9. No new flood control facilities are required by the development.
10. A new one million gallon water tank will provide water supply for Sugarloaf development and fire safety for Sugarloaf and the Laurelwood neighborhood.
11. Laurelwood park is extended by the dedication of four acres of adjacent land in Laurel Creek Canyon.



CONCLUSIONS AND RECOMMENDATIONS

Conclusions

As a result of the General and Specific Plan studies, the staff has concluded that:

- The goals and objectives developed for the Sugarloaf Planning process have been achieved.
- The proposed General Plan and Specific Plan represent sound guidelines for responsible development of Sugarloaf.
- The public, the city, and the developer will benefit from the development.
- The Transfer of Development Rights process developed in the Sugarloaf Concept Plan will work out the Specific Plan, provide economic potential for the developer, while at the same time protect open space.
- The development proposed by the plans will have a minimum of significant adverse environmental impacts.

Recommendations

- Staff recommends that:

The County and City of San Mateo adopt the General and Specific plans as the general and detailed guidelines for the Sugarloaf Planning Area.

- The City of San Mateo and the landowner, following adoption of the General and Specific Plans apply to the Local Agency Formation Commission for annexation of unincorporated Sugarloaf. As part of this process, the City should withdraw its presently pending detachment application pertaining to a portion of the subject property.
- To preserve the density balance achieved through the transfer of development rights, the land designated as open space should be permanently consigned to such use through a legal covenant entered into between the developer and a public entity or through other legal means. In the alternative, the developer may, at its option, dedicate for open space use all or such portion or portions of such land as the City or another public entity would be willing to accept for open space use. All references to open space land dedication contained within this document should — except for park dedication as authorized in the San Mateo Municipal Code and the Subdivision Map Act — be viewed as tentative and subject to negotiation between the public entities and the developer.

INTRODUCTION

Sugarloaf Project History

The Sugarloaf Mountain site is a 262-acre tract of privately owned, undeveloped land situated easterly of State Highway 92 between the cities of

San Mateo to the north and Belmont to the south. The site comprises a highly visible island of relatively undisturbed open space surrounded by foothill residential development.

In July of 1971, the Cargus Corporation, current owners of the Sugarloaf property, submitted development plans to the City of San Mateo. The City approved a modified version of the proposal and in March of 1972 was permitted by the Local Agency Formation Commission (LAFCO) to annex the northerly portion of the site. No development was undertaken at the time and attempts at annexing additional portions of the site culminated in Proposition J, a referendum which demonstrated public opposition to development and annexation by the City of San Mateo.

Early in 1973, the San Mateo County Regional Planning Committee (RPC) completed a study of the property and recommended that all of Sugarloaf Mountain be set aside as a public park. In part, because County policy emphasizes the location of regional parks away from urban areas, the RPC proposal was not implemented. However, the regional importance of the property was recognized. In November of 1973, LAFCO requested that the County Planning Department work with the City of San Mateo to determine a logical city limit boundary. Early in 1974, the City of Belmont joined in the effort to establish logical jurisdictional roles and a period of detailed discussions began. In mid 1975, the County Board of Supervisors authorized the County Planning Department to prepare a Concept Plan aimed at assessing existing development alternatives and resolving the numerous planning issues.

In 1976, following public hearings, a modified version of Concept Plan, Alternate A (see Appendix B) was approved by both the County and the City of San Mateo. The most important feature of the Concept Plan is the transfer of development potential from Sugarloaf Mountain and Laurel Canyon to areas known as the Hogback and Knolls. The City of Belmont, which would be relatively unaffected by Alternate A if implemented, relinquished its active role in this planning program.

Development plans, consistent with Alternate A, were submitted by the Cargus Corporation during the first half of 1977 for review by City and County staff. Through a cooperative agreement with the City of San Mateo, the County Planning staff has taken a leading role in preparing a General Plan Amendment and Specific Plan for joint adoption by the City and County. The County has also prepared a Draft Environmental Impact Report intended to serve all actions to be taken as part of the Sugarloaf project including annexation.

General Plan Purpose

With the adoption of the Concept Plan for Sugarloaf, the County and the City of San Mateo have acknowledged the right of the Cargus Corporation to reasonable use of its property. Accordingly, the plan proposed that the Hogback and Knolls be used for specific urban uses. The designations of 'Open Space' and 'Study Area' which currently appear in the City and County General Plans must be refined to reflect those areas which will be committed to urban use and those which will be retained in open space or park use.

For the County Board of Supervisors and the City of San Mateo City Council, the General Plan will legally be their comprehensive statement of basic goals

and policies related to the Sugarloaf site. The General Plan provides an overall framework which must be augmented by precise plans for actual projects. Including both written and illustrative materials, the General Plan constitutes a common base of understanding for both private citizens and public officials. Its maps and diagrams provide a general picture of how the area should be developed and the plan's written material describes plan policies and how they can be achieved.

SPECIFIC PLAN PURPOSE

Land development is accomplished by the approval and implementation of a specific plan in accordance with established general plan and zoning designations. A specific plan provides the parts that fit the general plan framework. The specific plan sets forth in precise detail such information as the proposed grading, placement of utilities, locations of roads, recreational facilities and building design. For both development areas and open space areas the specific plan describes future ownership patterns and how ongoing maintenance will be insured.

The Sugarloaf Specific Plan is included with the General Plan Amendment and draft Environmental Impact Report in this document to consolidate planning requirements and to answer questions of how the General Plan policies are to be implemented.

Purpose of the EIR

The Sugarloaf project involves a general plan amendment, rezoning of land, specific plan approval, land annexation and land development. All of these actions are subject to the California Environmental Quality Act of 1970 as amended. The Act requires that an impact report be prepared for public review and certification by the public authority responsible for project approval in any case where it appears that significant environmental impacts may result from the project.

The draft Environmental Impact Report contained in this report is intended to serve as the master document for all actions related to the Sugarloaf project. The Sugarloaf Specific Plan outlines a phased development. Therefore, supplemental information and applications may be required by the City of San Mateo to insure that the impacts of future phases such as the condominium building and site design still to be delineated in detail remain within the impact limits anticipated by the report.

Plan Review and Approval

A diagram outlining the proposed approval process and participants is contained as Appendix A of this document.

Four major public hearings to be held jointly between County and City officials are proposed for the purpose of review and adoption of planning documents. The first two hearings are before the City and County Planning Commissions and the second two before the City Council and Board of Supervisors. Additional hearings may be scheduled if needed. At each of the hearings, government officials and interested citizens should consider the entire comprehensive package of planning requirements including the

Enviro
Plan,
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should
involve
approv

Implem
develop
City s
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GOALS AND OBJECTIVES

Plan Organization

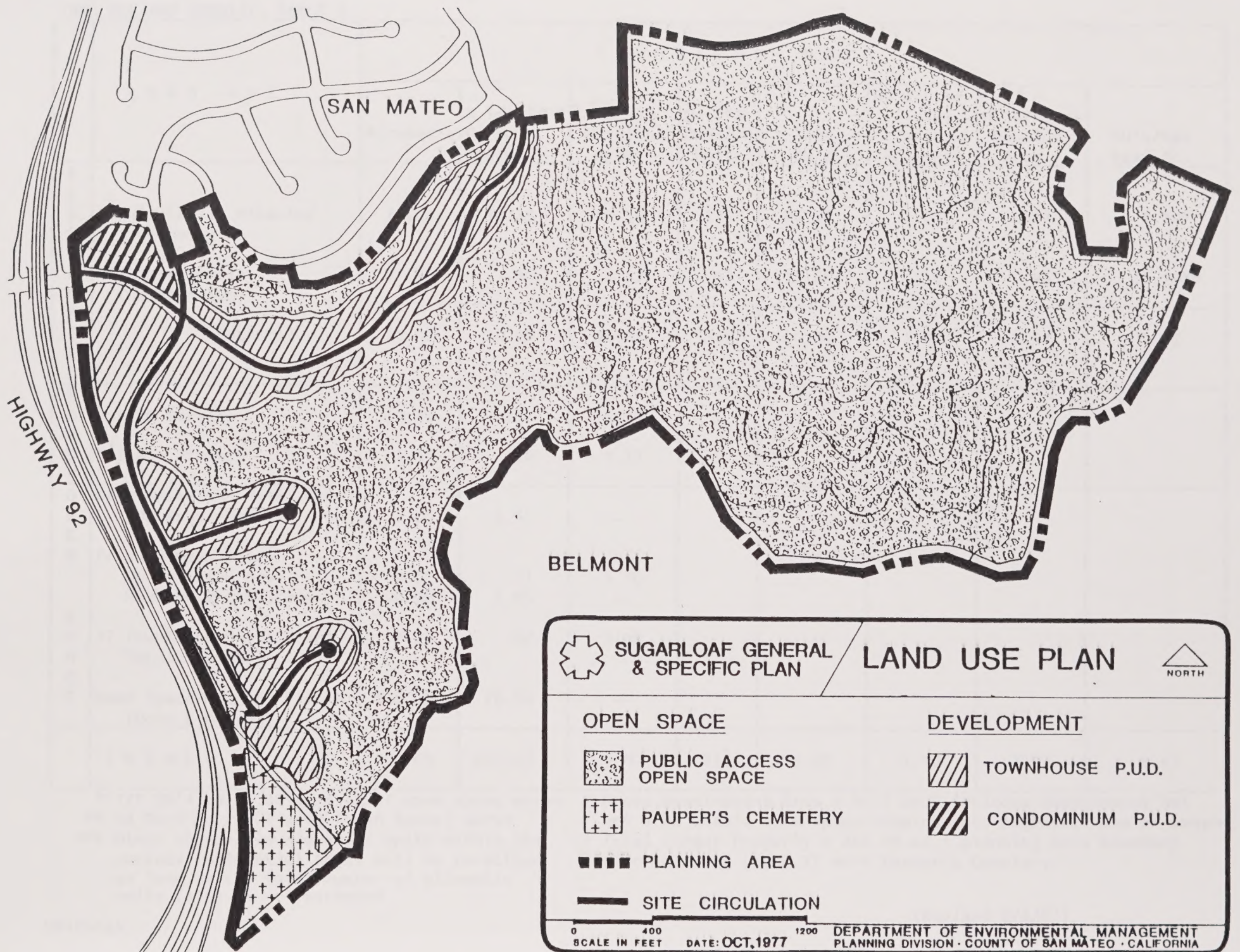
This General Plan Amendment is a policy plan. Policies related to each of the pertinent elements required by State planning law are gathered in one place for ease of reference. Maps of the Planning Area illustrate the written policies. These policies, when adopted, will state the legal intent of the Board of Supervisors and San Mateo City Council and will establish the framework for the decisions on the Specific Plan.

This General Plan Amendment contains the following sections: Overall Goals and Objectives; Land Use; Housing; Conservation; Open Space and Landscape; Circulation; Facilities and Services; Scenic and Design Resources. In addition to these elements, the plan contains policies designed to guide and insure the quality of the development during and after plan adoption.

Goals and Objectives

Listed below are the overall goals which underlie the Sugarloaf General Plan Amendment policies:

- Provide for well planned development while meeting the needs for open space in the Mid-Peninsula and the Cities of Belmont and San Mateo.
- Provide for the construction of new housing units.
- Preserve and enhance the open and environmental resources of San Mateo County and the Cities of Belmont and San Mateo by preserving a majority of the flora, fauna and topography of the Sugarloaf area.
- Reduce overall environmental impacts and increase open space retention through the use of compact development clustering.
- Provide a wide range of public services and facilities in the development area.



SUGARLOAF GENERAL
& SPECIFIC PLAN

LAND USE PLAN



OPEN SPACE



PUBLIC ACCESS
OPEN SPACE



PAUPER'S CEMETERY



PLANNING AREA



SITE CIRCULATION

DEVELOPMENT



TOWNHOUSE P.U.D.



CONDOMINIUM P.U.D.

0 400 1200
SCALE IN FEET

DATE: OCT. 1977

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION · COUNTY OF SAN MATEO · CALIFORNIA

(Revised 2/2/87)

LAND USE AND DENSITY: TABLE 1

	LAND USE	TECHNICAL DATA							
		Acreage++	% Total Cargus Property	% Total+ Develop. Area	No.*** Dwell'g Units	% Total DU's	DU's/Acre Total Cargus Property	DU's/Acre+ Develop. Area	DU's/Net Res. Ac.
RESIDENTIAL	Single-Family Attached (Townhouse)	27.07	10.33	60.56	273	86.39	1.04	6.11	9.30*
	Multiple-Family (Condominium)	.95	.36	2.13	43	13.61	.16	.96	12.29**
	Subtotal	28.02	10.69	62.69	316	100.00	1.20	7.07	9.62
ROADS	Public Streets	10.40	3.97	23.27					
	Private Streets	1.46	.58	3.27					
OPEN SPACE	Open Space/San Mateo City PUD Requirements	4.00	1.53	—					
	Private Open Space Condominium Area	2.55	.97	5.70					
	Hogback North Slope	8.00	3.05	—					
	47 Townhouse Units (incl. tennis courts)	2.27	.87	5.08					
	Open Space/Concept Plan A (Cone & Canyon)	205.35	78.36	—					
TOTALS		262.05	100.00	100.00	316	100.00	1.20	7.07	9.62

* 273 DU's on 27.07 acres+2.27 open space acres

** 43 DU's on .95 + 2.55 (open space) acres

*** Minor changes in number of units within the various residential types will be permitted as long as the total number of allowable units (316) is not exceeded.

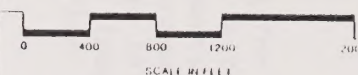
+ Gross Development Area = 44.7 ac.; includes development but not 4 ac usable open space requirement, hogback, cone or canyon.
++ Total Cargus Property = 262.05 ac.; planning area boundary also includes the 5.37 acre Pauper's Cemetery.



SUGARLOAF GENERAL & SPECIFIC PLAN



OPEN SPACE PLAN



-  **DEVELOPMENT AREAS**
-  **PUBLIC ACCESS
OPEN SPACE**
-  **PAUPER'S
CEMETERY**
-  **PUBLIC PARK**
-  **PROPOSED
BIKEWAY**
-  **PROPOSED
TRAIL**

SOURCE S.M. Co.
DATE October 1977

DEPT. OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION
SAN MATEO COUNTY · CALIFORNIA



7. A system of paths and open space areas should link development and park areas.

CIRCULATION POLICIES

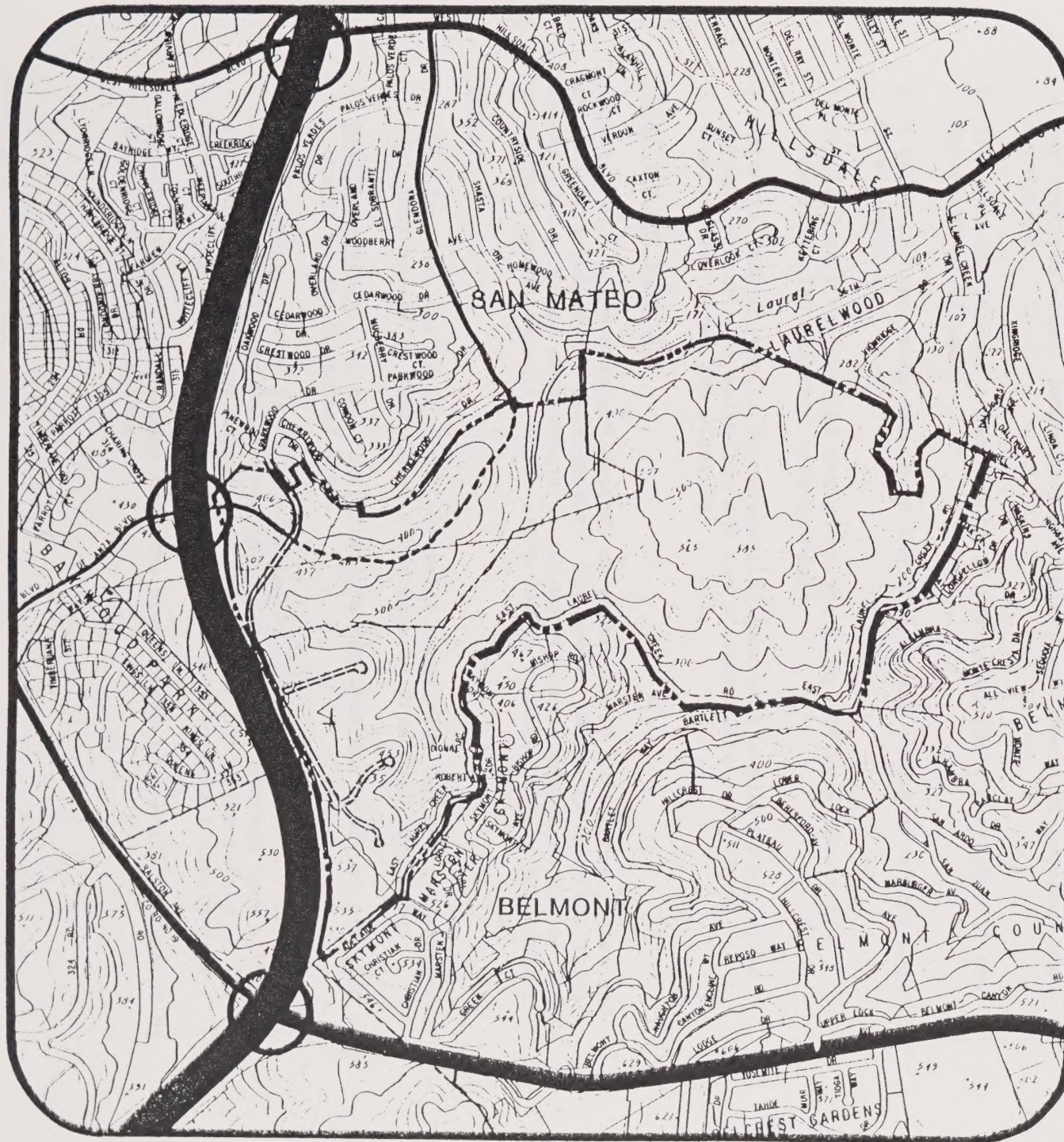
Context. Roadways and parking for the private automobile are the most important circulation factors, although provision for public transit, bicycles and pedestrians are integral parts of the overall transportation program. In the Sugarloaf General Plan Amendment, automobile related facilities are shown on the 'Circulation Plan' (page 14); public bus facilities are shown on the 'Facilities and Services Plan' (page 16); bicycle and pedestrian facilities are shown on the 'Open Space Plan' (page 12).

Policies

1. A local street network should be developed so that the majority of the development is served by local and cul-de-sac streets rather than facing directly on through streets.
2. The Sugarloaf circulation system should be oriented toward the De Anza intersection with Highway 92 and away from dependency on existing neighborhood collector streets.
3. Any cost of traffic improvements at the De Anza interchange required as a result of the Sugarloaf development should be the responsibility of the developer.
4. Bikeways and pedestrian paths in the Sugarloaf plan should relate to and help complete the overall systems in the Mid-Peninsula.
5. Public bus service should be provided to a central pick up point in the Sugarloaf development area.
6. Glendora Drive should be extended through the development area and connected with De Anza Boulevard to provide an access point to the Laurelwood neighborhood. This is a deviation from Concept Plan A, but now that the entire land use is residential, this through street should be acceptable.
7. No vehicular connections should be made between the development area and the mountain cone or to Laurel Canyon.
8. No vehicular connections between existing streets in the Cities of Belmont or San Mateo should be made to the mountain cone or to Laurel Canyon.

SCENIC AND DESIGN RESOURCES

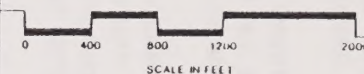
Context. Urban aesthetics and environmental amenities directly influence a community's character and are important factors in promoting pride and neighborhood stability. Private development as well as public facilities are designed to form a logical, visible neighborhood identity.



SUGARLOAF GENERAL & SPECIFIC PLAN



CIRCULATION PLAN



MAJOR HIGHWAY

PRIMARY
ARTERIAL

SECONDARY
ARTERIAL

COLLECTOR STREET

EXISTING

PROPOSED

LOCAL STREET

EXISTING

PROPOSED

SOURCE S. M. Co.
DATE October 1977

DEPT. OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION
SAN MATEO COUNTY - CALIFORNIA

Policies

1. The visual qualities of the Sugarloaf Mountain Cone and Laurel Canyon should be retained undisturbed.
2. A majority of the natural vegetative growth on the north slope of the Hogback should be retained as a buffer between the existing Laurelwood neighborhood and new development on the Hogback.
3. Views of the Hogback development from Belmont should be softened by retaining a significant amount of natural open space in this portion of the development area and through the use of landscaping to recapture the natural ridge profile after grading.
4. Views from Highway 92 to the Sugarloaf Mountain Cone should not be blocked by development; where taller buildings or noise barriers along the highway may restrict views, landscaped view corridors should be provided and maintained.
5. Views to open spaced areas should be the predominant character of the Sugarloaf development.
6. A sense of open space should be the predominant character of the Sugarloaf Development.
7. Single family residential design in the Sugarloaf area should be compatible with adjacent neighborhoods.
8. Potential noise impacts on residential land uses should be minimized through proper site selection and use of such devices as grade separations, berms and planting.

FACILITIES AND SERVICES

Context. Well planned growth depends on extension of public facilities and services to areas of new development. The proper design of new facilities insures that proposed development is served with an adequate margin of safety but without excess capacity which might invite unwanted future development.

Policies

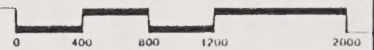
1. Schools. Any shifts in school district boundaries for the convenience of residents should be considered after Sugarloaf is fully developed.
2. Health Services. No new facilities are required nor shall be provided as a result of the Sugarloaf Plan.
3. Water Supply. Water is to be supplied by the San Francisco Hetch Hetchy Water System via the California Water Service to a storage tank within the site having sufficient capacity to provide for both fire safety in the general area and peak fresh water needs of the Sugarloaf development.
4. Sanitary Sewer. All sewage from the development area shall be treated by the San Mateo City system.



SUGARLOAF GENERAL & SPECIFIC PLAN



FACILITIES AND SERVICES PLAN



SCALE IN FEET

- DEVELOPMENT AREA
- LAUREL CREEK DAM
- NATURAL DRAINAGE
- PROPOSED STORM DISCHARGE FROM DEVELOPMENT TO ENERGY DISSIPATOR
- PROPOSED MAJOR WATER AND SEWER LINES
- PROPOSED WATER SUPPLY STORAGE TANK
- PROPOSED SANITARY SEWER TRUNKLINE CONNECTION
- PROPOSED BUS ROUTE
- PROPOSED BUS STOP

SOURCE S.M. Co.
DATE October 1977

DEPT. OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION
SAN MATEO COUNTY - CALIFORNIA



5. Drainage. All runoff from development areas of the Sugarloaf site shall be channeled through the City of San Mateo in conformance with County and City standards to prevent flooding and erosion.
6. Utilities. Gas and electricity should be provided by Pacific Gas and Electric Company serving the Mid-Peninsula and all service lines undergrounded throughout the area.
7. Police. Police services to the development area and for open space surveillance shall be provided by the City of San Mateo.
8. Fire. Fire fighting services to the planning area shall be provided primarily by the City of San Mateo.

GEOLOGICAL HAZARDS POLICIES

- See Residential policy #3, page 10.

NOISE POLICIES

- See Residential policy #4, page 10; Design Policy #8, page 15.

GENERAL PLAN AND DEVELOPMENT ADMINISTRATION

CITY/COUNTY RELATIONSHIPS

Based upon the memorandum of understanding between City and County staffs, the County is lead agency for Environmental Impact Report certification. Beyond this action, four alternative relationships between the City and County for plan reviews were explored.

1. Joint County and City Adoption of the General Plan Amendment and Specific Plan would be followed by City annexation of the Planning Area. The City would then grant all remaining plan approvals.

CONCLUSION: This is considered to be optimum for joint County/City participation.

2. Joint County and City adoption of the General Plan Amendment would be followed by City annexation of the Planning Area. The City would then adopt the Specific Plan and grant all other remaining plan approvals.

CONCLUSION: This alternative reduces the County's participation in this controversial plan effort.

3. Immediate annexation of the Planning Area to the City would be followed by City adoption of the General Plan Amendment and Specific Plan and the granting of all remaining plan approvals.

CONCLUSION: This alternative is not appropriate because County participation is eliminated.

4. County adoption of the General Plan Amendment and Specific Plan would be followed by annexation of the Planning Area to the City. The City would then grant all remaining plan approvals.

CONCLUSION: This alternative is not appropriate because the Planning Area is within the City's sphere of influence and part of the area has already been annexed to the City.

The optimum relationship between the City and County for plan approval is for joint County and City adoption of the General Plan Amendment and Specific Plan. This promotes City/County coordination in planning for the Sugarloaf site and encourages the concept of a consolidated permit procedure. Annexation of the site would be considered by the Local Agency Formation Commission at the request of the City. Actual project implementation, in conformance with the adopted Specific Plan would involve just the City. The County has no active interest in monitoring the actual development nor in accepting dedication of any lands to be retained in open space. Ownership of the Pauper's Cemetery would remain with the County.

Policy

To avoid piecemeal planning, the County and City shall limit consideration and adoption of a General Plan Amendment and Specific Plan to that which, in a single action, includes a comprehensive treatment of the entire Sugarloaf Planning Area.

DEVELOPMENT PHASING

GENERAL POLICIES

1. Environmental protection measures should be phased for implementation with each construction phase.
2. Grading should be staged so that it is limited to the areas of immediate construction activity for townhouse areas; condominium sites should be graded near the last townhouse grading phase, and drainage and reseeding measures taken to control erosion until the condominium construction phase.

TRANSPORTATION POLICY

Road improvements shown in the Circulation Plan should occur in phase with Plan Area development requirements.

FACILITIES AND SERVICES POLICIES

1. Police services, fire services and open space and park facilities should be provided in phase with the needs of the residents as each increment of the plan area becomes occupied.
2. Gas, electric, sanitary sewer and water facilities should be provided in phase with the development needs of the residents as each increment of the plan area is constructed.

FINANCING AND MANAGEMENT

Context

One of the main objectives of the Specific Plan is to resolve the technical details of ownership and ongoing maintenance of property and facilities once the development is completed. General Plan policies related to the financing and management of community facilities establish the framework for those more detailed specific plan recommendations.

Policies

1. The developer should construct the following facilities and dedicate them to the responsible governmental jurisdictions for operation and maintenance:
 - Selected public parks to be dedicated to the ultimate responsible jurisdiction.
 - Public utilities and roads.
2. The developer should construct the following facilities and dedicate them to the Homeowner's Association:
 - Selected private open space lands.
 - Bikeways and paths other than in the public right-of-way.
3. The developer should dedicate unimproved open space to the ultimate annexing jurisdictions.

ADDITIONAL PLAN REVIEW

Context

The effects of construction, especially those related to grading such as temporary noise and dust, are particularly visible to the community at large. Additional plan review policies acknowledge these concerns and provide for Specific Plan review of them.

POLICIES

1. A Grading Plan should be developed at the Specific Plan stage which preserves the character of the natural landscape and prominent topographic features of the Planning Area.
2. Methodologies to offset air quality impacts during construction should be developed in the Specific Plan.
3. Detailed methods for reducing construction noise, pollution and other on and off-site disturbances should be developed in the Specific Plan.

PUBLIC PROTECTION POLICIES

Context

When roads are not completed or utilities not installed in a timely fashion during development due to financial problems or other factors affecting the developer, these facilities may have to be installed at public expense. Safeguards can be taken to insure that these property costs remain the responsibility of the developer. Basic City/ County relationships during the planning and development process are discussed on page 15. The City who will be ultimately responsible for the ongoing maintenance of many site improvements should carefully monitor the initial construction to insure that maintenance problems are not built in. Below are stated basic policies for protection of the public welfare during the planning process.

POLICIES

1. The County and City of San Mateo should exercise their jurisdictions to monitor and to regulate the development of the plan area, and to take all steps available to protect the public welfare so that the public will not carry the burdens of unfinished development or other impediments which would be a financial burden to the public.
2. The City of San Mateo should, as a condition of approval of the Specific Plan, require an agreement between the developer and the City that will guarantee the required road improvements will be provided by the time of full occupancy of the PUD or rezoned area.
3. The City of San Mateo should insure that public facilities and services required by the General Plan Amendment and Specific Plan shall be available concurrent with need by requiring the developer to present evidence, including security if necessary, that the required facilities and services will be provided.

ANNEXATION ALTERNATIVES

Context

About 200 acres of the 267-acres Sugarloaf Planning area are currently under County jurisdiction. Some 66 acres, comprising part of the proposed Sugarloaf Development area, were already annexed to the City of San Mateo in the early 1970's.

As development becomes imminent, annexation of additional land to the City will be necessary. To accommodate the development which is presently proposed, the portion lying within City boundaries will have to be rezoned to reflect those uses specified in the General Plan Amendment. Rezoning - that is, the zoning of land before it is annexed to the City - is also anticipated so that areas presently under County jurisdiction will also reflect the uses designated in the General Plan Amendment when these areas become part of the City.

- Minimize the impacts of project generated demand on existing circulation systems.
- Provide for the development of housing which is compatible with surrounding, existing uses.

The Goals and Policies of this General Plan Amendment have been derived from the following source documents:

1. Sugarloaf - Concept Plan Analysis, March 1976, revised August 1976, prepared by the San Mateo County Department of Environmental Management.
2. San Mateo City General Plan
3. San Mateo County General Plan
4. Sugarloaf Review Committee Report, May 1973, prepared by the San Mateo County Regional Planning Committee.
5. Staff Reports prepared by the San Mateo City and County Planning staffs.
6. Sugarloaf Arboricultural Environmental Impact Study, by Forest Ag, Lafayette, CA, October, 1977.

GENERAL PLAN POLICIES

LAND USE & HOUSING

OVERALL LAND USE STATEMENT

Sugarloaf is a highly visible and environmentally sensitive site surrounded by existing hillside residential uses. This General Plan Amendment proposes residential and open space uses which can be compatible with existing conditions if the plan policies are followed. The Land Use Plan on page 8 illustrates the distribution of land uses within the Sugarloaf Plan. Acreage devoted to each of these land uses is set forth in Table I on page 9.

LAND USE POLICIES

Context. Balanced growth depends on the proper location of land uses in relation to one another and in relation to the natural environment. Proper quantities of new development at any one location are part of the total supply and demand balance in the community.

Policies

1. The general location of all proposed uses shall be as shown on the Land Use Plan and the acreage devoted to each use shall be as shown in Table I and shall not exceed those amounts.
2. New development shall generally not be allowed where the existing slope of the land exceeds 25%.

(Revision Date Effective 2-21-84)

RESIDENTIAL LAND USE POLICIES

Context. Safe and comfortable housing can be provided by locating new development away from geologic hazards and potentially objectionable dust, odor and noise. The choice among single family, townhouse and condominium unit type and the variety in unit size will help, provide a range of housing types for a range of family sizes.

Policies

1. The total allowable number of units is set forth in Table I.
2. Residential densities shall be limited to within the range shown in Table I.
3. Housing units shall be located only where soils and geologic conditions permit safe placement.
4. The majority of townhouse units shall generally be clustered along quiet, cul-de-sac streets.
5. Condominium complexes should be placed at locations closest to major circulation routes and where view amenities are available.
6. New residential development should generally provide value in excess of service costs to the community.

Conservation Policies

Context. Sugarloaf Mountain is visually a natural backdrop for much of the Mid-Peninsula area. In addition, the Planning area contains the Pauper's Cemetery and several unique natural features including creeks, a riparian/woodland habitat, heritage trees and significant stands of woodland containing resident wildlife. Maximum conservation of these feature can be achieved by limiting urban development to the less sensitive areas of the natural setting.

Policies

1. Signs and fencing should be installed to inform the public and to protect the Pauper's Cemetery.
2. Water quality within and around the development area during and after construction should be insured through proper channelization of surface and ground water runoff, landscaping of graded areas, and maintenance of siltation basins.
3. The major creek system of Laurel Canyon should be recognized as a positive feature in the physical environment and made the focus of hiking trails.
4. Grading should be restricted to dry months generally from May to October and no graded areas should be left unplanted during the rainy season.

(Revision Date Effective 2-21-84)

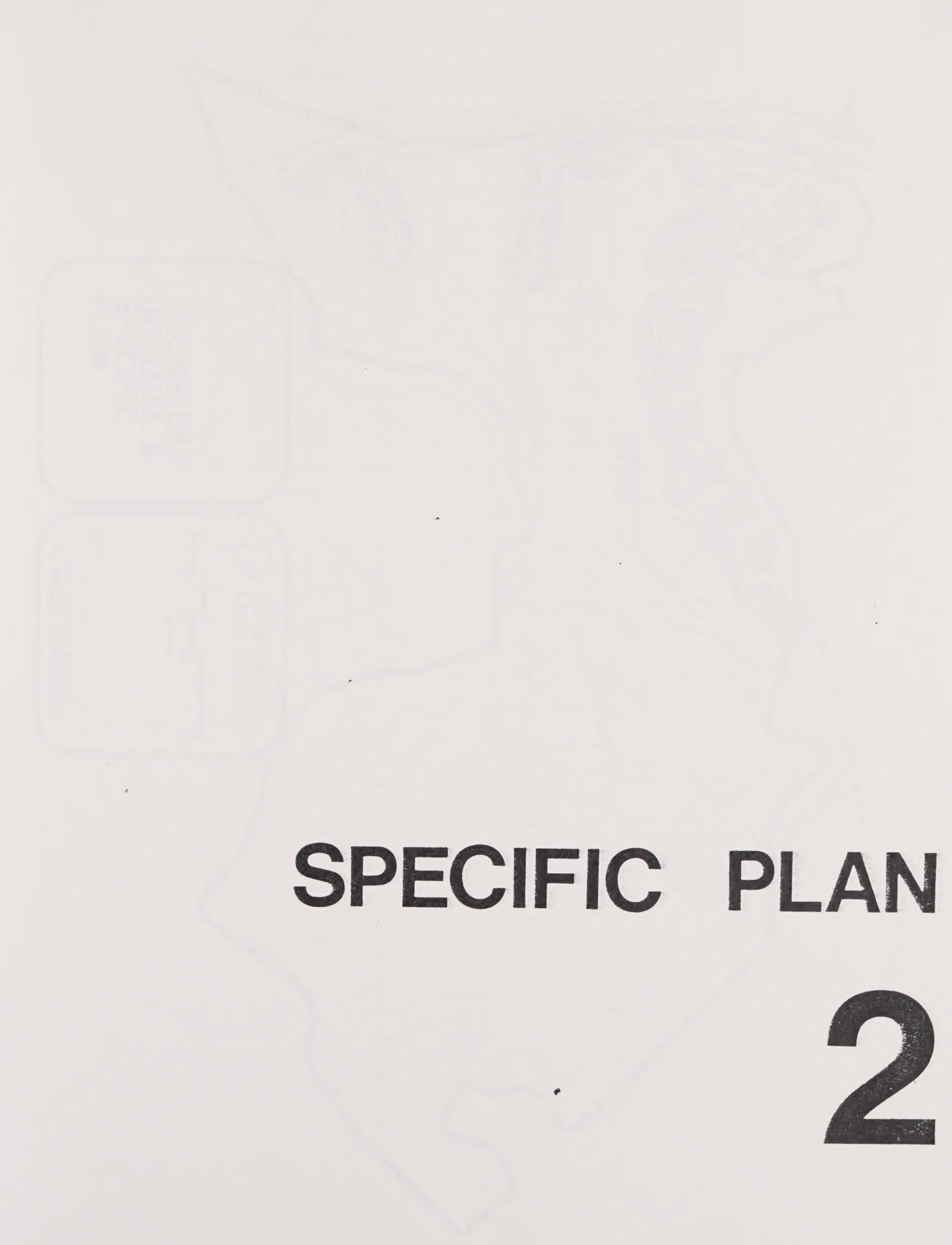
5. Existing tree and vegetative masses should be incorporated into the design of developed areas as much as practicable at more detailed phases of planning.
6. Existing significant stands of trees should be identified and protected throughout the planning and development process.
7. Existing vegetation to be retained within the development areas, and those in open space areas should be protected from potential damage caused by roads and changes in drainage patterns.
8. Landscaping plans for all planning areas should utilize native plant types existing on-site, and where this is infeasible, plant species requiring minimal irrigation should be used.
9. Standard planting treatments should be developed during the Specific Plan review stages.
10. Loss of topsoil and existing vegetation should be minimized during construction.

LANDSCAPING AND OPEN SPACE

Context. Sugarloaf's magnificent natural setting offers both areas which can be preserved in open space and other areas which can be used for development. The environmental amenities of the area directly influence the quality and appearance of development, and conversely development should not degrade the natural setting. New residents generate new demand on open space and recreational resources which should be satisfied by new facilities that are part of each new project.

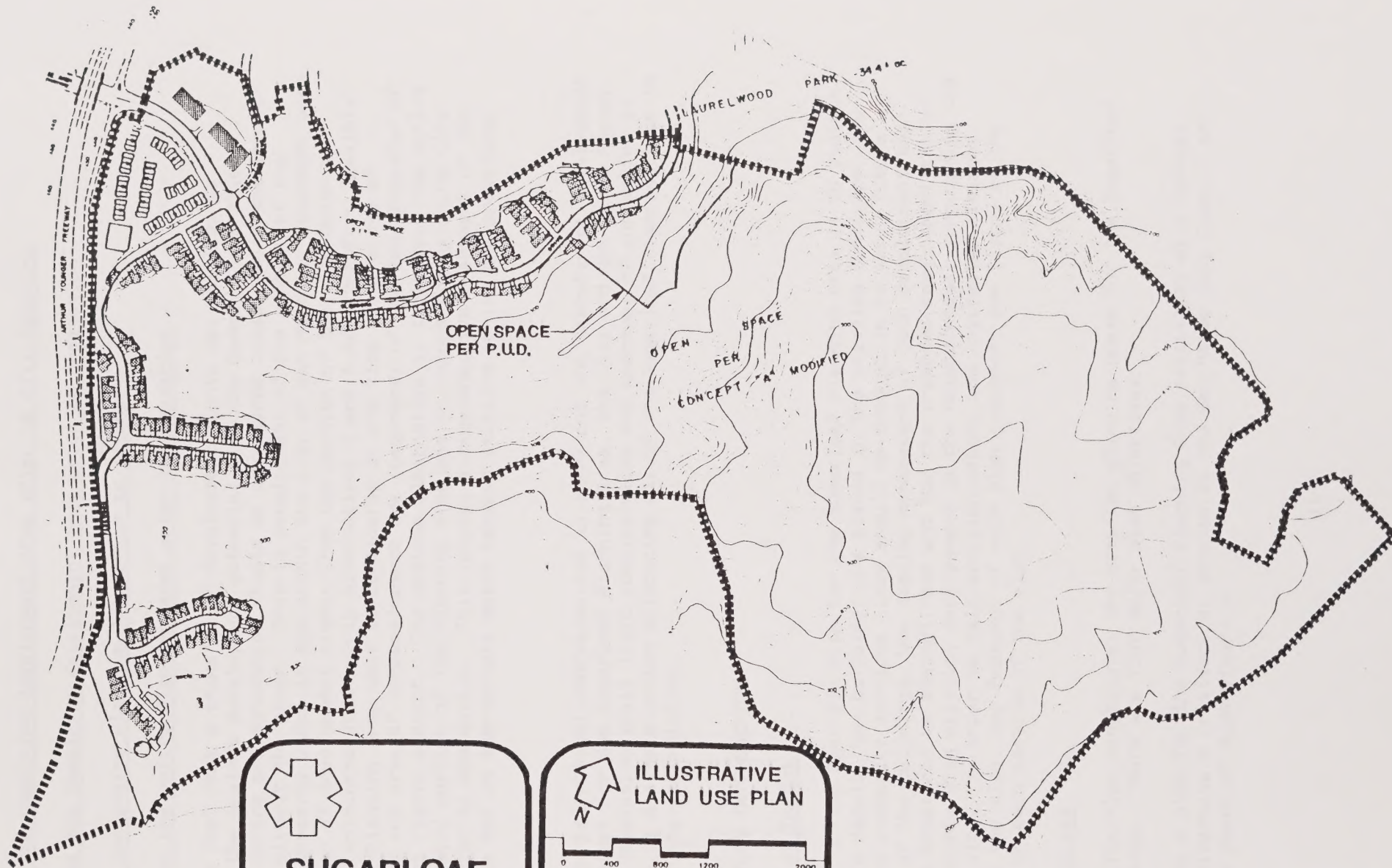
Policies

1. The landscape design for the development area should provide a smooth transition between the man-made and the natural environmental, and it should maintain the site's natural features.
2. Plants to be introduced to the site should be selected which are compatible with the microclimate of the development area.
3. Where necessary, trees and existing hills should be used for screening and noise dampening between clusters of development and to reduce the effect of the wind.
4. New trees should be planted to provide protective wind screens for existing trees when native trees have been removed by development.
5. Active recreation facilities should be provided for future residents of the Sugarloaf area by the developer in an amount and at locations set forth by City of San Mateo standards.
6. Provision should be made for the maintenance and preservation of all open space within the Sugarloaf Planning Area before development begins.



SPECIFIC PLAN

2



**SUGARLOAF
GENERAL &
SPECIFIC
PLAN**



**ILLUSTRATIVE
LAND USE PLAN**

0 400 800 1200 2000

SCALE IN FEET

SOURCE
DATE

**SAN MATEO COUNTY
PLANNING DEPARTMENT**

Four alternative forms of annexation were considered:

1. Annex the remaining development area prior to City rezoning.
2. Prezone the remaining development area prior to annexation.
3. Annex the entire Planning Area prior to rezoning.
4. Prezone the entire Planning Area prior to annexation.

Due to the fact that a transfer of development rights was utilized to designate the maximum development potential with the Cargus Corporation property, zoning and annexation should be considered inseparable; one should not occur without the other. Orderly development of the portion of the Sugarloaf property which is now within the City of San Mateo is dependent upon the transfer of development rights from the portion of the site which at present is unincorporated. Only alternatives 3 and 4 are therefore feasible. The entire Planning Area must be considered at one time since areas of development and area of nondevelopment are components of the same transfer of development rights concept. The optimum alternative is to prezone the entire unincorporated portion of the Planning Area and to rezone the existing City portion prior to annexation. This insures a comprehensive treatment of the entire site and an appropriate match between existing zoning and prezoneing.

Policy

To avoid jurisdictional confusion and to carry out the transfer of development rights concept for the Sugarloaf Planning Area, the City and the Local Agency Formation Commission shall limit consideration and approval of annexation to that which is a single action allocating all of the Sugarloaf Planning Area to San Mateo City jurisdiction.

SPECIFIC PLAN INTRODUCTION

Statement of Intent

The intent of the Specific Plan for the Sugarloaf Planning Area is to explain clearly, in detail, how buildings are placed in the existing landscape, how utility and community services lines should be brought in to serve future occupants of the buildings, how ongoing management of both development and open space areas can be accomplished and how the proposed development can be made compatible with existing development in the neighborhoods surrounding the Sugarloaf site. In order to help decision makers and interested citizens understand the plan, key features of each plan component are listed at the beginning of each section of the plan.

Plan Objectives

This Specific Plan constitutes the detailed planning phase for the Sugarloaf Planning Area. There are four major plan objectives:

1. Provide a plan for the Sugarloaf Planning Area consistent with Concept Plan Alternate A (revised) as adopted by the San Mateo City Council and County Board of Supervisors.

2. Provide a plan for the Sugarloaf Planning Area consistent with the goals and policies adopted by the San Mateo City Council and County Board of Supervisors in the General Plan Amendment.
3. Provide a comprehensive and detailed plan for the Sugarloaf Planning Area illustrating all areas to be changed by earthmoving and

construction so that an environmental impact report may be prepared and so that a maximum aggregation of the following City requirements for plan approval can be accomplished:

- Grading Plan
 - Site Development Permit
 - Site Plan and Architectural Review
 - Planned Unit Development
 - Rezoning of Land Within City Boundaries
 - Prezoning of Land Presently in County Boundaries
 - Annexation of County Land to the City
4. Resolve the technical details of responsibility for improvement costs, ultimate ownership of land in the Planning Area, and ultimate responsibility for ongoing maintenance of land and facilities.

Plan Components

The Specific Plan is organized to begin with the Grading Analysis followed by the section on Site Plan and Design. The following sections portray Drainage and Utilities, Circulation and Parking, and Open Space and Landscape. Details of Land Dedication, Subdivision Actions, and Lighting are at the back. The Land Use Plan, which precedes this introduction, is intended to portray an overall view of the Specific Plan.

Development Area

Development Area refers to all land over which building occurs and includes all grading for construction.

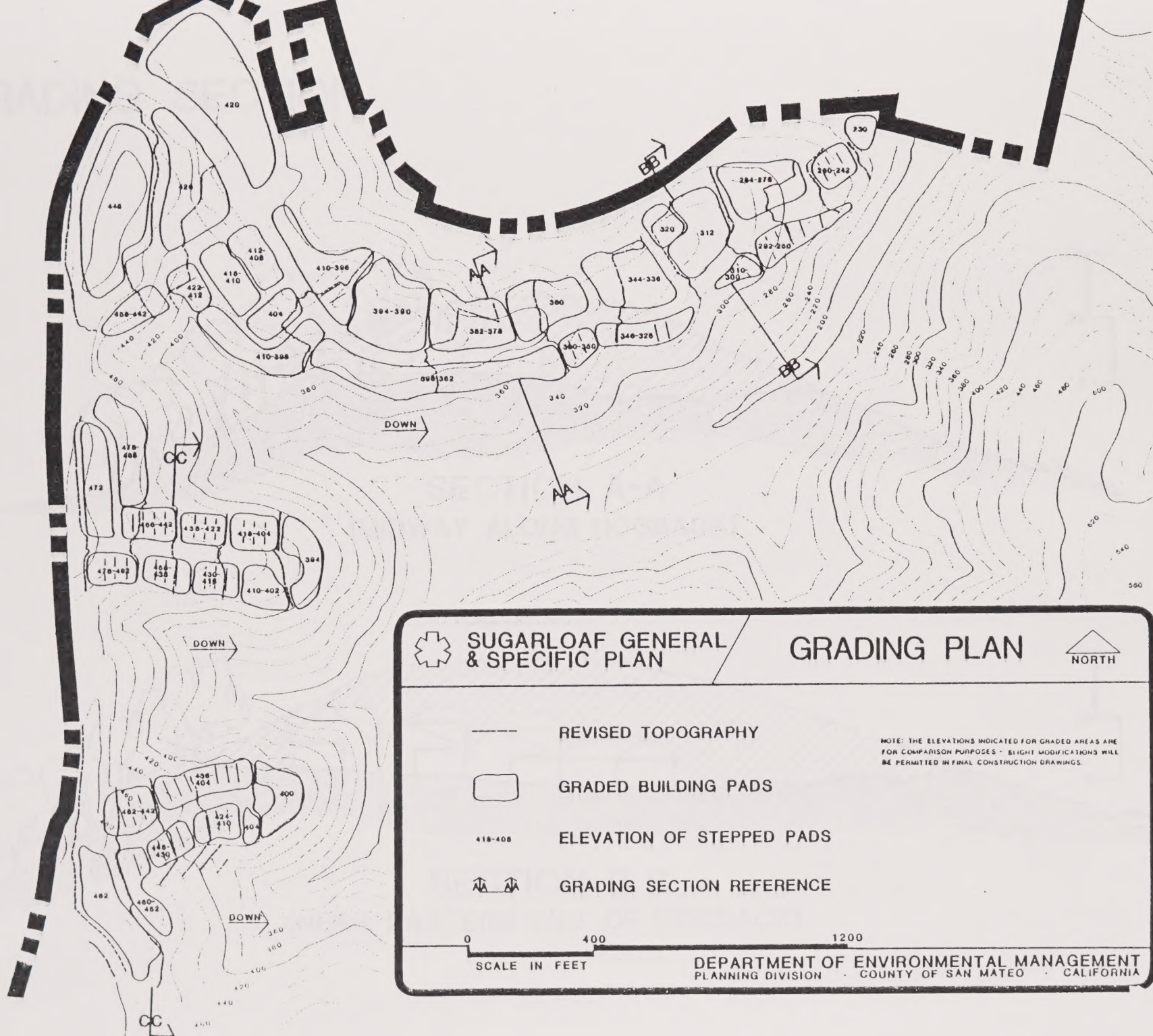
GRADING PLAN AND ANALYSIS

KEY FEATURES OF THE GRADING PLAN

1. Stepped building pads are created following the existing west-to-east change in elevation on the Knolls and along the Hogback.
2. Graded areas are sloped to streets for drainage.
3. All earth to be exported will be taken via De Anza Boulevard to Highway 92.

SITE CONDITIONS AND THE OVERALL GRADING CONCEPT

Existing site topography in the development Area falls from west to east. There is approximately a 300' elevation differential from the high of 500'



SUGARLOAF GENERAL & SPECIFIC PLAN

GRADING PLAN



- REVISED TOPOGRAPHY
- GRADED BUILDING PADS
- ELEVATION OF STEPPED PADS
- GRADING SECTION REFERENCE

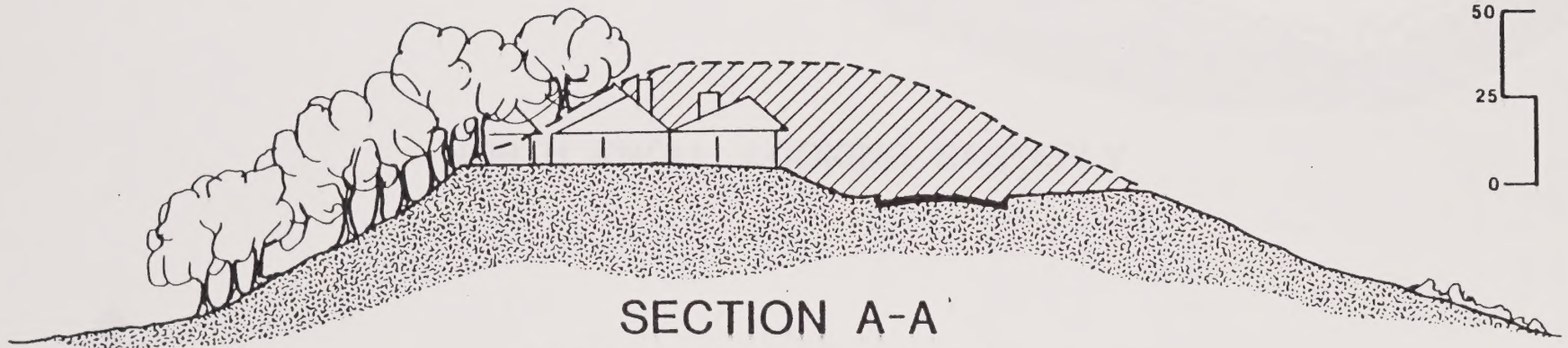
NOTE: THE ELEVATIONS INDICATED FOR GRADED AREAS ARE FOR COMPARISON PURPOSES - SLIGHT MODIFICATIONS WILL BE PERMITTED IN FINAL CONSTRUCTION DRAWINGS.

0 400 1200

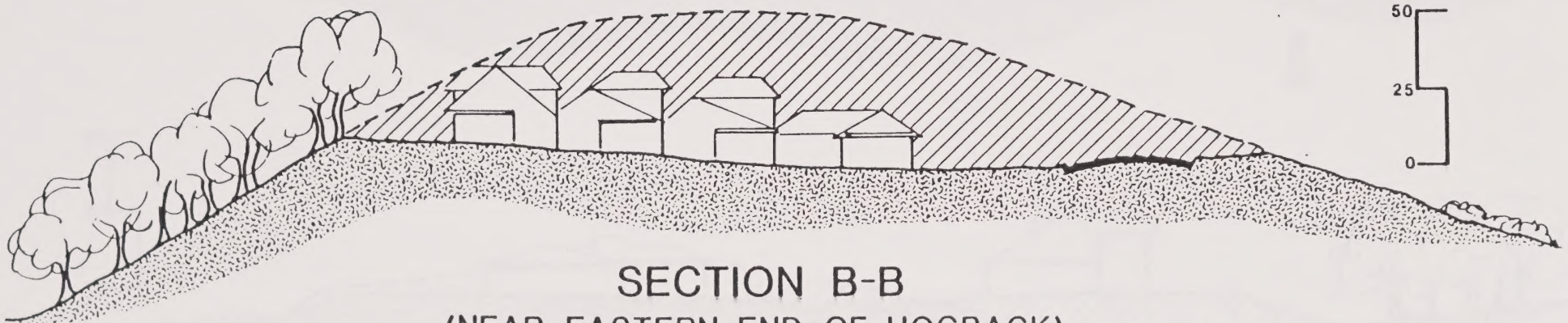
SCALE IN FEET

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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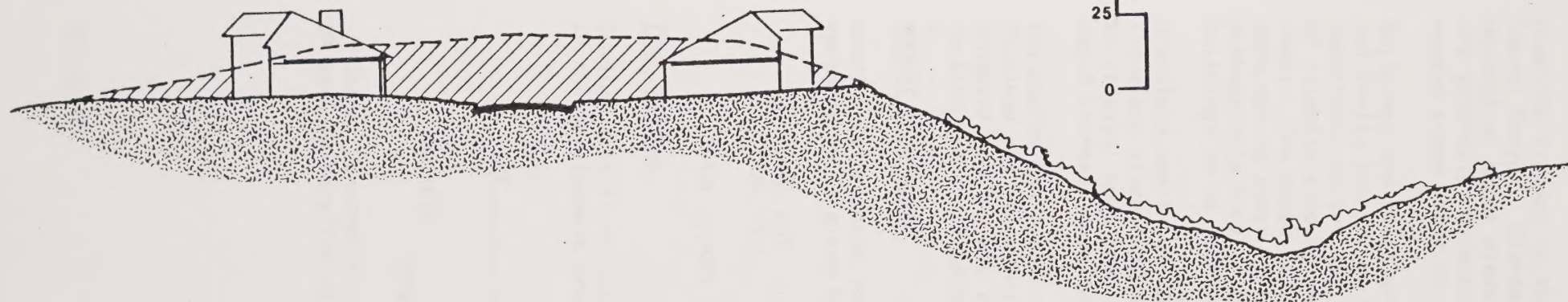
GRADING SECTION



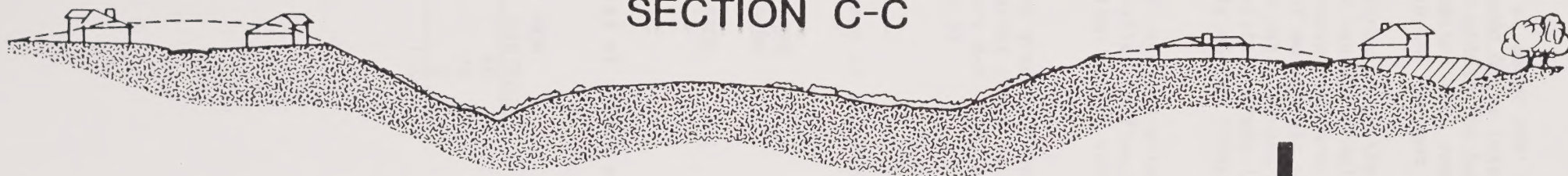
SECTION A-A
(MIDWAY ALONG HOGBACK)



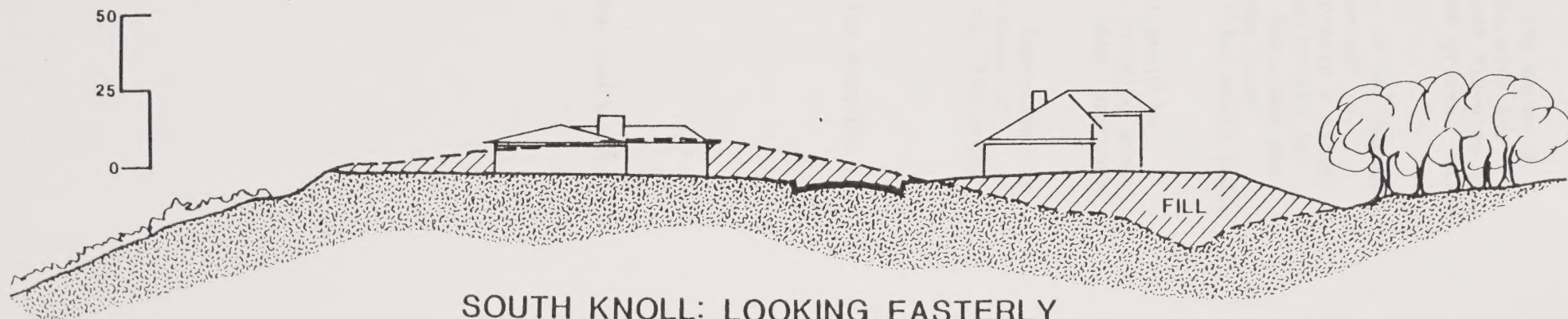
SECTION B-B
(NEAR EASTERN END OF HOGBACK)



NORTH KNOLL: LOOKING EASTERLY



SECTION C-C



SOUTH KNOLL: LOOKING EASTERLY

near the freeway to the creekbed elevation of about 180' near the mouth of Laurel Canyon. Glendora Drive near Cherrywood Drive intersects with the Hogback at about elevation 210'. Ridgetops within the Sugarloaf Planning Area are generally characterized by grassland habitat with some tree groves. Major wooded areas occur on the side slopes and in the canyons.

Buildings and roads are proposed to be constructed on the tops of the Hogback and Knolls but not on the side slopes. The overall grading concept is, therefore, to cut off the rounded tops of these landforms to create a series of slightly sloping pads for construction of moderately sloping grades for roads. The depth of cuts is illustrated on pages 29 and 30. Grassland and some mature trees will be removed as the existing grade is taken down. Without this form of grading, the relatively narrow ridge profiles would cause buildings to be located on the side slopes.

Grassland and trees would still be affected; erosion potential would be increased since drainage could not be controlled to flow from building areas to streets; and, the cost of foundation design to fit varying site locations would increase housing costs.

The map on the opposite page illustrates the grading concept. Approximately finished pad elevations are indicated. Typical cross section views of proposed grading are indicated by the letters A-A, B-B, and C-C. The cross section views are contained on pages 29 and 30.

AMOUNT OF GRADING

Grading is proposed for approximately 48 acres of the site. The quantity of earthmoving is given below:*

TOTAL CUT	1,409,549 CUBIC YARDS
TOTAL FILL	25,233 CUBIC YARDS
TOTAL EXPORT	1,384,316 CUBIC YARDS

TREE REMOVAL

Grading activities will result in the removal of mature oak, bay and buckeye in the Development Area.

TREE TYPE	HERITAGE TREES** (San Mateo Ord.)	NON HERITAGE
OAK	133	85
BAY	16	22
BUCKEYE	17	7
TOTAL	166	114

* Cargus Corporation estimate

** See Glossary for definitions

DETAILED GRADING ANALYSIS

GRADING SCHEDULE

Construction of residential units will generally occur in five phases, each lasting approximately 1-1/2 years. Grading is proposed to be done at or near the outset of each construction phase for the townhouse units so as not to leave bare earth exposed to potential wind and water erosion. The townhouse site designated in grading phase 4 will be graded about the same time as the Knolls (grading phase 3). However, construction of the townhouse units is not expected to begin right away. Drainage improvements and hydroseeding will be required on the site to control erosion until construction begins. The Map on the opposite page illustrates the proposed grading phases.

If the two Knolls are graded concurrently as shown, roads, utilities and drainage should be installed on both Knolls before the first rainy season following grading, and graded areas that will be left undeveloped through the rainy season planted for erosion control.

GRADING EXPORT

Export material from grading operations will be taken along the haul routes shown in the plan on the opposite page. All material will be taken through the De Anza Boulevard interchange with Highway 92 and from there to destinations throughout the Peninsula. A total of 480 truck trips per day entering and leaving the site is estimated during hauling periods.

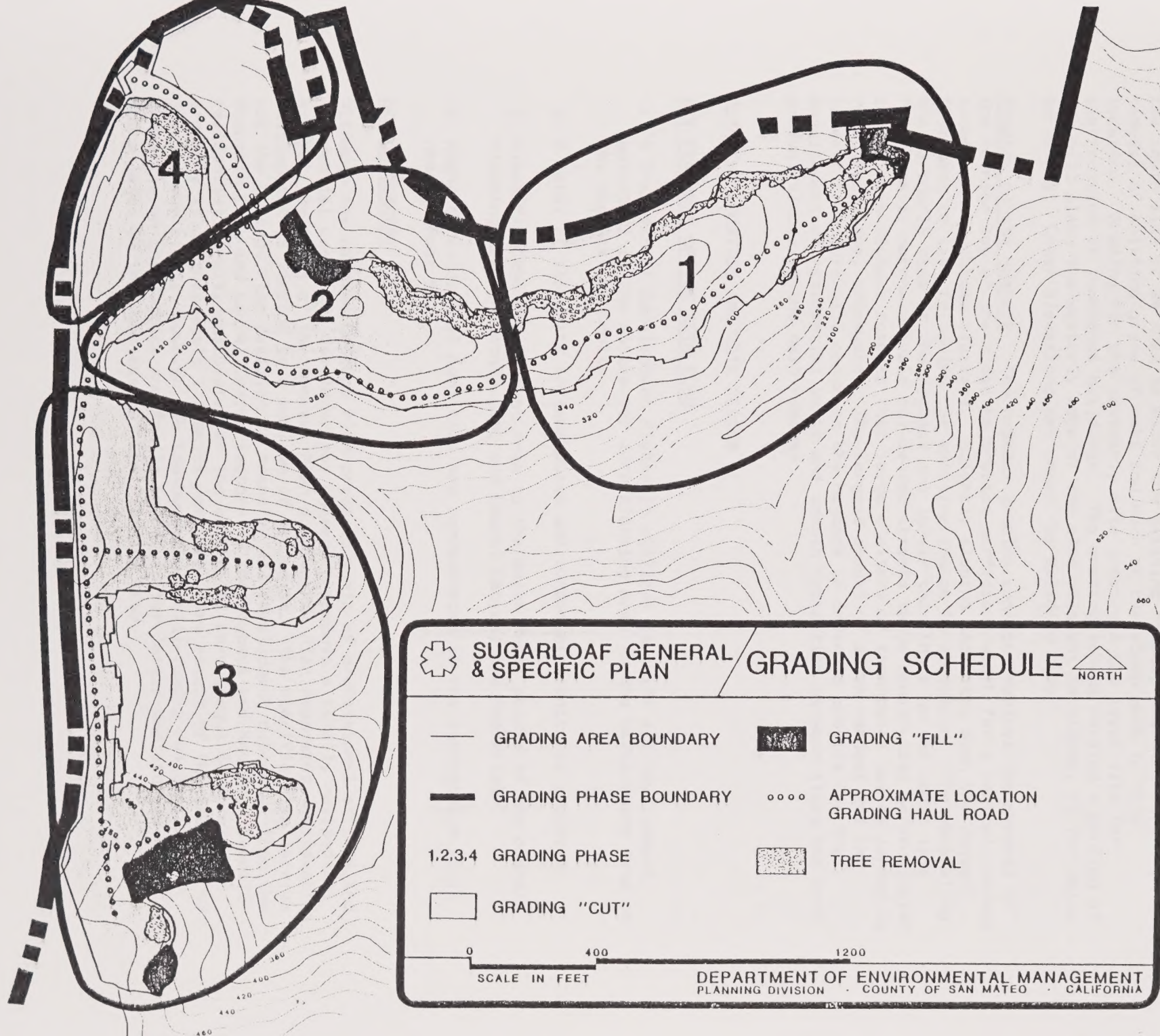
DETAILED GRADING ANALYSIS

The following sections describe in detail the proposed grading on the Knolls, Condominium Sites and Hogback.

Grading on the Knolls. The Knolls drop in elevation from the approximately 480' nearest the freeway to about 400' at the easterly limit of the development Area. Cul-de-sac streets will be constructed following the spine of each Knoll. Clusters of townhouses will be constructed along both sides with drainage to the central street. Grading consists of removing the rounded tops of the Knolls to provide sufficient width for the cul-de-sac streets and building groups.

Slightly sloping building pads will be constructed to step down the Knolls from west to east following the existing change in elevation. Although the townhouse clusters appear to enclose the street, the elevation differential from west to east allows views from the cul-de-sac to the Mountain Cone over the rooftops of lower units.

Some tree removal will occur on each of the knolls, however, the edge of development generally coincides with the upper edge of the wooded slopes.



**SUGARLOAF GENERAL
& SPECIFIC PLAN**

GRADING SCHEDULE



GRADING AREA BOUNDARY



GRADING "FILL"



GRADING PHASE BOUNDARY



APPROXIMATE LOCATION
GRADING HAUL ROAD

1,2,3,4

GRADING PHASE



TREE REMOVAL



GRADING "CUT"

0

400

1200

SCALE IN FEET

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION · COUNTY OF SAN MATEO · CALIFORNIA

Grading on the SR 92 and De Anza Boulevard Sites. The site north of De Anza Boulevard has already been graded to form a large pad. Grading is required on the south side of De Anza to widen the existing roadway and will result in the removal of existing grove of oaks and much of the steep bank in this location. Grading for the southerly site creates a two level site for construction of townhouse buildings. The grading scheme retains a portion of the hill along the westerly edge of the site adjacent to Highway 92 for noise buffering. Lower elevations are shown for building pads.

Grading on the Hogback. The Hogback grading concept involves the removal of the rounded top of the ridge to provide sufficient width for a central roadway lined with townhouse clusters. Slightly sloping pads step down the Hogback from west to east following the existing change in elevation. The pads along the northerly side of the Hogback are larger than those on the south side. This permits narrow private cul-de-sac streets to be constructed perpendicular to the main Hogback road so that large clusters of townhouses may be served by relatively level driveways. The largest amount of earth removal and the largest tree loss will occur on the Hogback in order to provide for the development of residential units and smooth transition between steep and more gradual slopes in the main roadway.

BUILDING LOCATION AND SITE DESIGN

KEY FEATURES OF THE SITE PLAN

1. A Transfer of Development Rights is utilized to shift all development potential in the entire 267 acre Planning Area to the Development Area on the Hogback and Knolls.
2. A total of 316 units in townhouses and condominium units is proposed.
3. Views from the Development Area to the major focal points of the overall Planning Area (Mountain Cone and Laurel Canyon) are emphasized.
4. Highest residential densities are concentrated in the condominium sites near Highway 92.

DESIGN CONCEPT

Although the adopted Concept Plan proposed a mix of professional offices and residential uses, the developer has chosen to propose a totally residential scheme. By terms of the Concept Plan and General Plan Amendment, residential development is limited to a maximum of 316 units. The Specific Plan carries out the Concept Plan decision to transfer all development potential from the Mountain Cone and Laurel Canyon sectors to the Hogback and Knolls. Overall residential density calculated on the entire 262 acre Cargus Corporation property is approximately 1.2 units per acre. The result of the transfer of development rights, however, is townhouse and multi-family residential densities on the Hogback and Knolls in return for larger undisturbed open space lands in the remainder of the Planning Area.

Development of the Sugarloaf Planning Area will be linked to the City of San Mateo at the De Anza intersection with Highway 92 and to Glendora Drive and Parkwood Drive leading from the existing Laurelwood Neighborhood. In all instances open space exists between areas designated for townhouse or condominium development and existing surrounding uses. To the north, the heavily wooded northern slopes and relatively higher elevation of the Hogback constitutes a natural visual separation between Sugarloaf development and existing single-family residential areas in the Laurelwood Neighborhood. To the south and east, the nearest areas of existing development are separated from Sugarloaf development by Laurel Canyon. To the west, Highway 92 provides a separator from existing development.

In the Site Plan, townhouse units are clustered along the Hogback and on the Knolls, while condominium units are concentrated [on two sites] near the De Anza Boulevard intersection with Highway 92.

ARCHITECTURAL SCHEMATICS

Townhouses are clustered along the Hogback and on the Knolls. Three architectural themes (Contemporary, Rustic, Mediterranean, French) and five basic unit plans (4-2 story and 1-1 story) are proposed. Individual units are attached in various combinations to form building groups. In order to provide visual separation and views from roads to open space areas, no single building group contains more than five attached units. Mixes of one and two story units provide a varied roofline. One story units generally mark the entrances to private cul-de-sac streets along the Hogback.

TYPICAL SIDE ELEVATION

This represents the end view of a building group as typically seen at the entry to a cul-de-sac.

TYPICAL FRONT ELEVATION

This represents the view of a building group as seen from the street.

TYPICAL REAR ELEVATION

This represents the view of a building group on either of the Knolls as seen from the Hogback

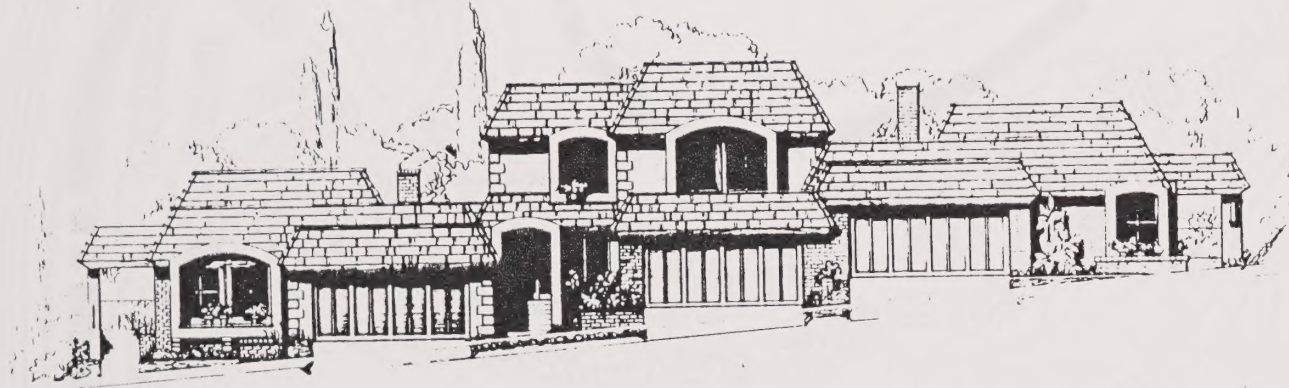
DETAILED DESIGN ANALYSIS

Townhouse Design. A total of 273 townhouse units are shown on the site plan to be placed in clusters on the Knolls and along the Hogback. The net residential density in areas devoted to townhouse use is approximately 9 units per acre.

Townhouse units are clustered along the spine of each Knoll. This minimizes the exposure to noise from Highway 92, maintains the gap between the Knolls which affords views to open space from 92 (a County designated Scenic Highway) and helps emphasize each of the Knolls as a distinct place.

To further mitigate the effects of freeway noise on the Knolls, the Specific Plan calls for routing Parkwood Drive easterly of the existing small ridge near the westerly end of the north Knoll. The small ridge then serves as a noise buffer.

ARCHITECTURAL SCHEMATICS



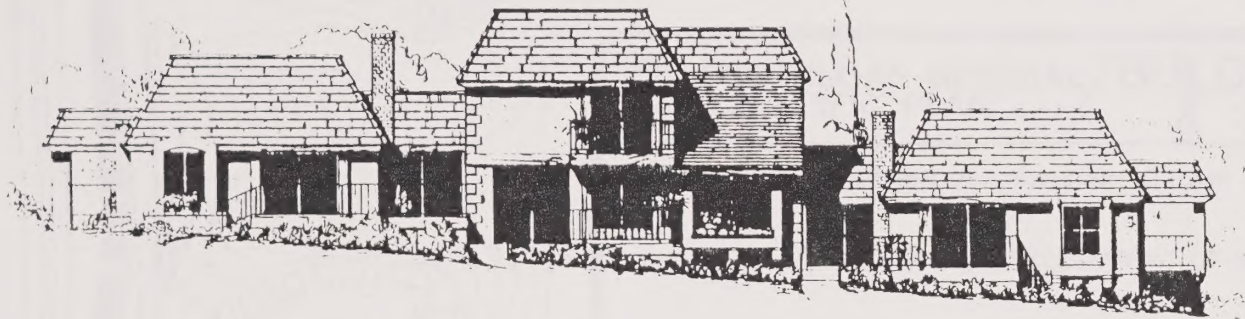
TYPICAL SIDE ELEVATION

This represents the end view of a building group as typically seen at the entry to a cul-de-sac.



TYPICAL FRONT ELEVATION

This represents the view of a building group as seen from the street.

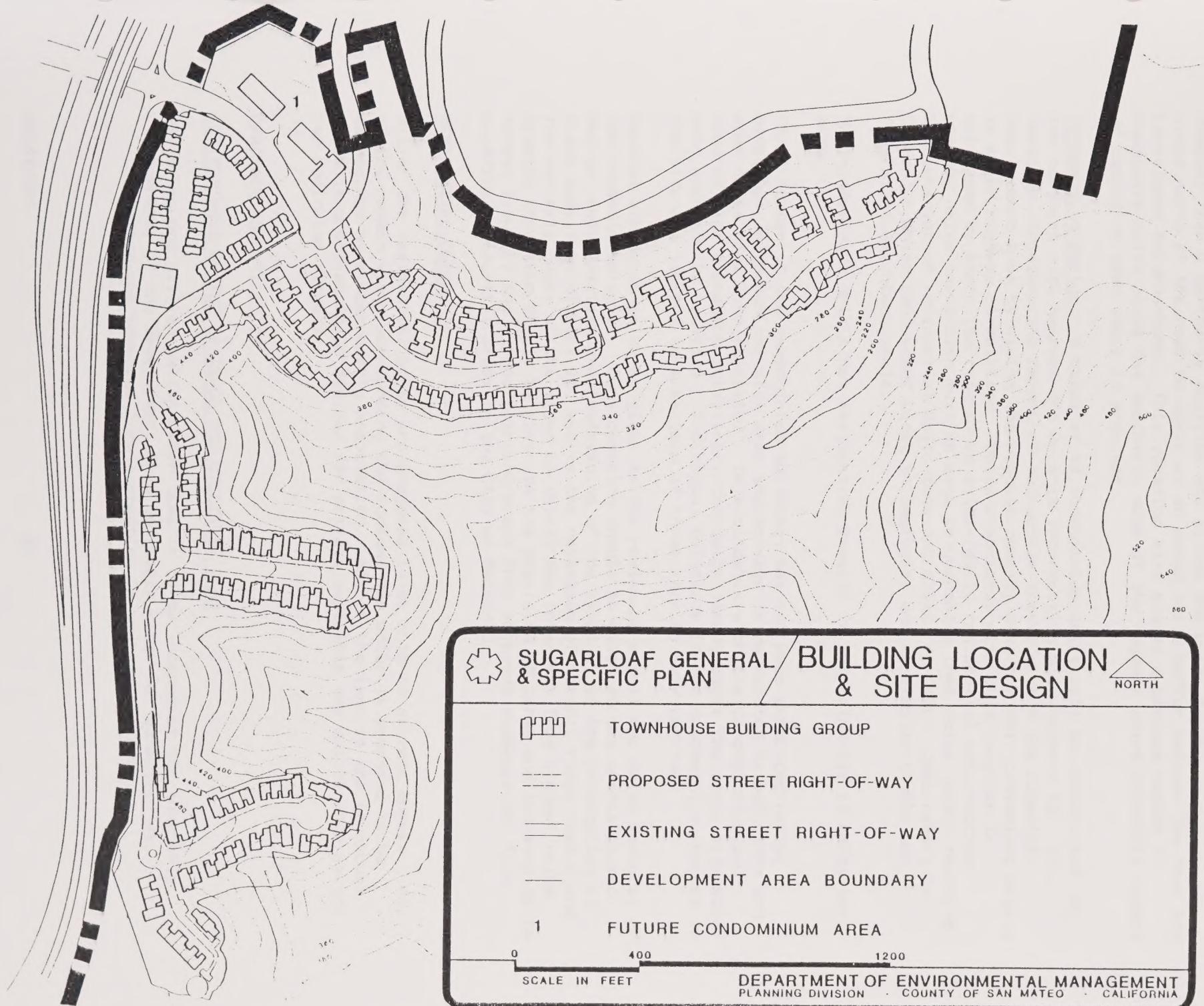


TYPICAL REAR ELEVATION

This represents the view of a building group on either of the Knolls as seen from the Hogback.

Townhouses are clustered along the Hogback and on the Knolls. Three architectural themes (Contemporary Rustic, Mediterranean, French) and five basic unit plans (4-2 story and 1-1 story) are proposed. Individual units are attached in various combinations to form building groups. In order to provide

visual separation and views from roads to open space areas, no single building group contains more than five attached units. Mixes of one and two story units provide a varied roofline. One story units generally mark the entrances to private cul-de-sac streets along the Hogback.



SUGARLOAF GENERAL
& SPECIFIC PLAN

BUILDING LOCATION
& SITE DESIGN



TOWNHOUSE BUILDING GROUP



PROPOSED STREET RIGHT-OF-WAY



EXISTING STREET RIGHT-OF-WAY



DEVELOPMENT AREA BOUNDARY

1

FUTURE CONDOMINIUM AREA

0

400

1200

SCALE IN FEET

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION · COUNTY OF SAN MATEO · CALIFORNIA

(Revised 2/2/87)

In the Site Plan the proposed extension of Glendora is positioned towards the southerly edge of the Hogback. This placement involves less grading and tree removal than a northerly position and allows the quiet townhouse cul-de-sac areas north of the road to serve as an added noise buffer between the road and Laurelwood Neighborhood. This location also places a minimum number of townhouse units along the southerly edge of the Hogback where potential impact of people on open space is greatest.

Condominium Design. A total of 43 condominium units will be constructed on the northern site nearest the De Anza intersection with Highway 92. This location minimizes the amount of automobile travel within the Sugarloaf Development Area by giving the highest density area the most convenient access to major highway circulation. Noise associated with this location is mitigated by State law related to multi-family residential construction whereby noise insulation must be used to guarantee that noise levels reaching the interior of residential units does not exceed 45 CNEL. CNEL refers to Community Noise Equivalent Level in decibels, and is similar to the Ldn (day/night weighted) scale.

The condominium unit's net residential density is approximately 12 units per acre.

Final design of the condominium buildings has not been submitted by the developer, although the site area and acreage to be devoted to buildings and open space have been suggested. In accordance with the Concept Plan and General Plan Amendment guidelines, the design cannot cause the total allowable unit count to be exceeded. Individual buildings in the condominium complex on the site are limited to a maximum of three stories over parking.

Special attention is to be given to the review of visual and noise features of the condominium units. Consideration should be given to the architectural design, color section and landscaping of the complex, to the orientation of views away from Highway 92, and to the retention of natural ridge tops along the westerly edges of the sites to shield the interiors from highway noise. Special attention should be given to the provision of berms and landscaping to screen views of any outdoor parking areas from adjacent roadways and from existing residential areas in the City of Belmont.

RESIDENTIAL OWNERSHIP

All of the residential units are proposed to be sold to private buyers. All of the common space surrounding the condominium units is proposed to be maintained by a Homeowner's association. All of the land in the townhouse areas is proposed to be divided for private ownership and maintenance except for dedicated streets.

DRAINAGE AND UTILITIES

KEY FEATURES OF THE DRAINAGE AND UTILITIES PLAN

1. A new one million gallon water tank is to be located at the southerly boundary of the Development Area to supply water for domestic use, irrigation and improved fire protection in the general area.

2. All storm runoff is to be channeled to streets within the Development Area to protect natural slopes from erosion damage.
3. All utilities are to be undergrounded.

WATER SYSTEM

Fresh water for domestic purposes and irrigation is to be supplied by the California Water Service Company to a new one-million gallon, on-site storage tank to be constructed at the southwestern end of the Sugarloaf Development Area near the Pauper's Cemetery. The tank, approximately 26' high and 75' in diameter is to feed water mains beneath Sugarloaf streets and is to be connected to the water system serving the adjacent Laurelwood Neighborhood to provide additional fire fighting capability.

Fire hydrants are to be spaced along the extensions of Parkwood and Glendora, along the streets serving the Knolls and at the ends of the cul-de-sac streets serving townhouse clusters along the Hogback in accordance with adopted San Mateo City standards.

The initial cost of the water system installation is the responsibility of the developer. A public utility refund provision permits the developer to be reimbursed up to 40% of the initial cash outlay over a 15-year period. Ongoing maintenance of the water lines from the meters to individual units will be the responsibility of the homeowner's association while the California Water Service Company will assume maintenance of the water tank and main service system following dedication.

The developer will be required to design and install an irrigation system to insure that front yard and street landscaping can be maintained in a viable condition. Individual townhouse owners will be responsible for street trees while the homeowner's association will ultimately be responsible for landscape maintenance in the condominium areas.

SANITARY SEWER SYSTEM

A combination gravity and force flow system will be constructed for the Sugarloaf project. Sewage generated by units on the Hogback will flow by gravity to an existing main at Glendora Drive. Sewage generated by units on the two Knolls will flow by gravity through underground pipes to collection sumps near the cul-de-sac turnarounds. An electric pump then pumps the sewage through separate lines to the Parkwood/De Anza interchange where it then flows by gravity downhill to the existing 15" diameter sewer main located near the Glendora/Cherrywood intersection.

Each of the sumps at the Knolls has a two-hour storage capacity in the event of power outage and can be emptied by auxiliary gasoline powered pump if necessary.

The developer will be required to provide an auxiliary trailer-mounted pump to be stored at the De Anza Fire Station or other convenient location for emergencies.

Initial costs of constructing the sanitary sewage collection system are the responsibility of the developer. Ongoing costs of maintenance are the responsibility of the City of San Mateo after dedication.

STORM DRAIN SYSTEM

Land development invariably causes an increase in the amount of run-off to natural drainage courses. This is due to the introduction of roofs and paved areas which do not allow rainfall to be absorbed into the ground. The existing volume of runoff from the Sugarloaf Planning Area entering the Laurel Creek drainage system during a maximum storm is estimated to increase by half as a result of the proposed development. Despite the increase, Laurel Creek dam is estimated to have sufficient capacity to safely accommodate this increase.

In order to minimize the erosion potential of increased runoff over natural terrain, storm water will be collected by roof gutters and drain tile from residential areas and channelled to the streets. The storm water then flows by gravity to catch basins in the streets. Outfall lines at the ends of each of the Knolls and at several points along the Hogback then carry the water down the natural slopes at grade to energy dissipators which empty into the natural drainageways of the Laurel Creek drainage system. Outfall lines placed on grade will be concealed by natural vegetation and are utilized to minimize the high erosion potential that would be caused by trenching.

The initial construction costs for the storm drain system are the responsibility of the developer; however, long-term maintenance will be performed by the City of San Mateo after dedication.

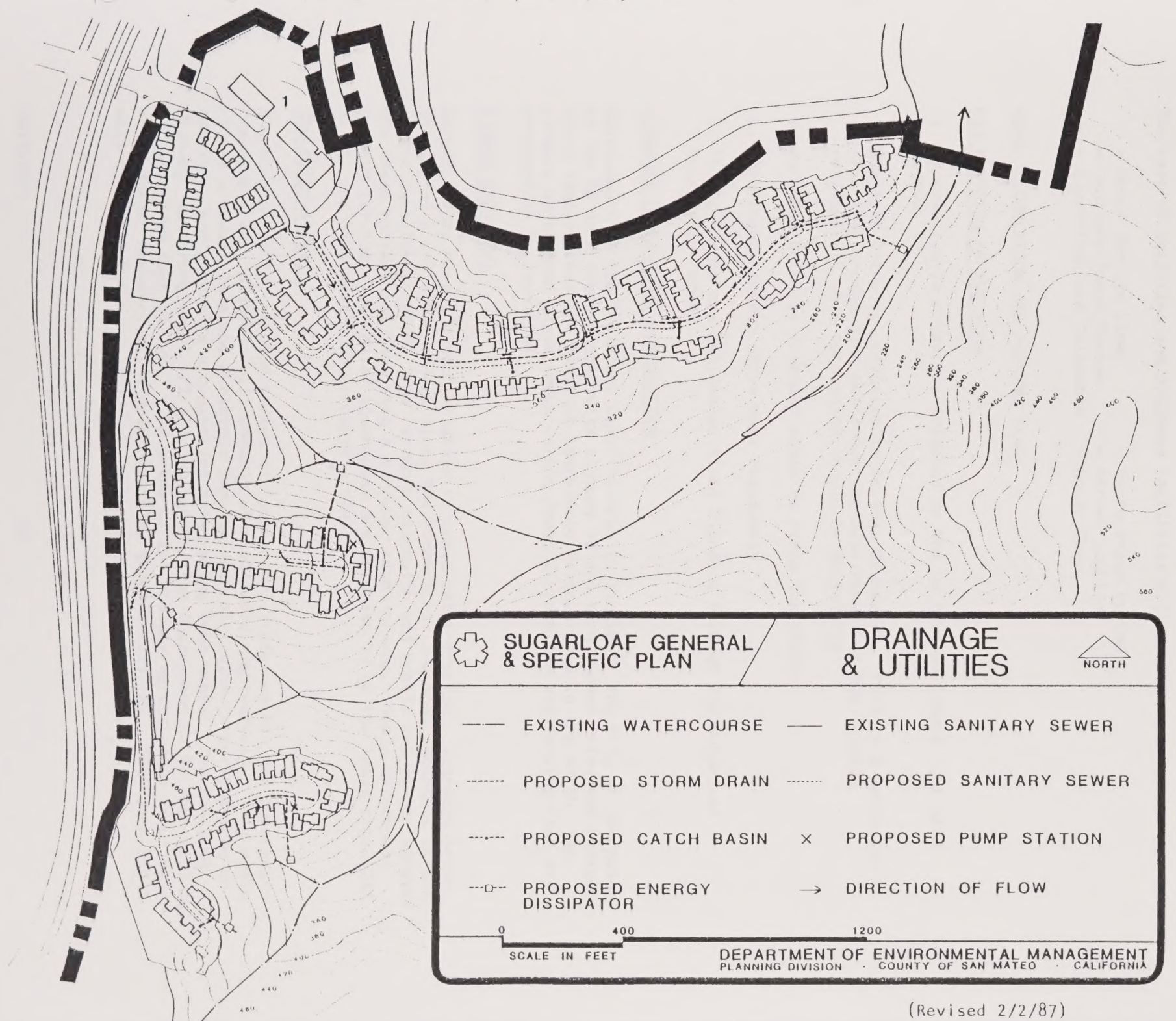
ENERGY AND COMMUNICATIONS SYSTEMS

Residential units will be served by natural gas for hot water and space heating and by electricity for lighting and most appliances. The underground main service lines will be paid for by the developer and installed by the utility company. Ongoing maintenance of service lines from meters to individual units will be the responsibility of individual townhouse owners and condominium associations while the utility company will assume maintenance of the main lines.

Telephone and Cable T.V. service will be provided by the developer and installed and maintained by the utility company. Service hookups will be made at the request of individual owners who will be responsible for the normal monthly service rates.

STREET LIGHTING

Cantilever-type fixtures will be used to light the larger streets on the Hogback and Knolls. Post-top, cluster-type fixtures will be used to light the narrow private cul-de-sac streets leading from the Hogback. All lighting will be installed to standards utilized by the City of San Mateo.



SUGARLOAF GENERAL
& SPECIFIC PLAN

DRAINAGE & UTILITIES



EXISTING WATERCOURSE



EXISTING SANITARY SEWER



PROPOSED STORM DRAIN



PROPOSED SANITARY SEWER



PROPOSED CATCH BASIN



PROPOSED PUMP STATION



PROPOSED ENERGY
DISSIPATOR



DIRECTION OF FLOW

0

400

1200

SCALE IN FEET

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION · COUNTY OF SAN MATEO · CALIFORNIA

(Revised 2/2/87)

ESTIMATED CONSTRUCTION COSTS

The cost of utilities and drainage facilities will include the following:

- Water Service Lines
- Sanitary Sewer System
- Electrical and Telephone
- Storm Drain System
- Street Lighting
- Water Tank

ROAD, CIRCULATION AND PARKING PLAN

KEY FEATURES OF THE PLAN

1. Circulation is primarily oriented to the De Anza Boulevard link with Highway 92.
2. Glendora Drive is connected to De Anza Boulevard. This is a deviation from the Concept Plan but since the development is now totally residential, this connection should be acceptable.
3. Parkwood Drive is extended south to serve the Knolls.
4. Cul-de-sac streets serve most residences.
5. Bicycle lanes are designated along Glendora through the Sugarloaf Development Area.

LINKAGES TO EXISTING CIRCULATION

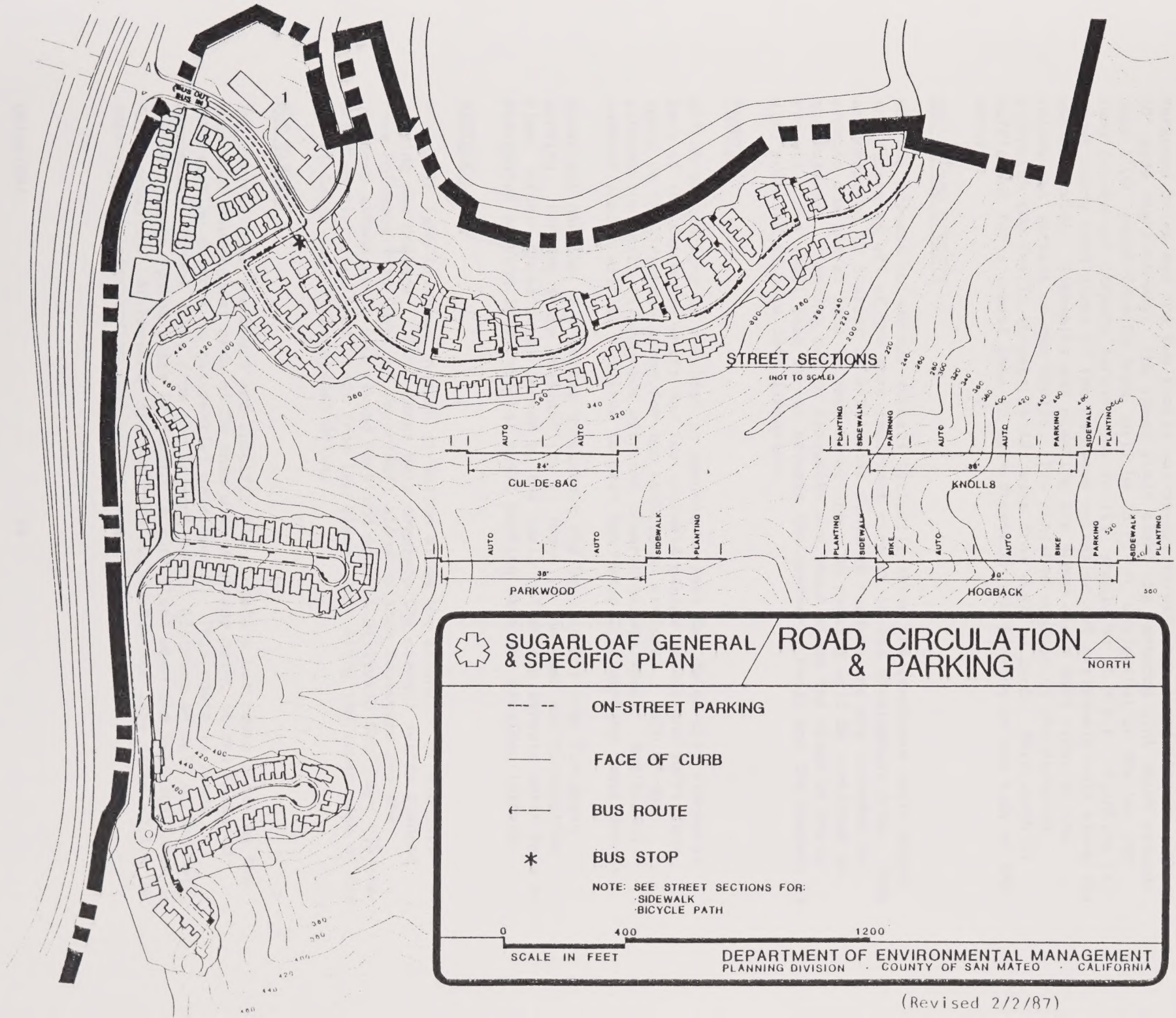
Development in the Sugarloaf Planning Area is linked to the City of San Mateo at the De Anza intersection with Highway 92 and to Glendora Drive and Parkwood Drive leading from the existing Laurelwood Neighborhood to the north. No streets other than those shown in the Road, Circulation and Parking Plan are proposed to be developed.

STREET HIERARCHY

Street widths have a direct relation to anticipated traffic. Glendora Drive, serving as a collector street along the Hogback, is the most important street in the Development Area. The Parkwood extension and Knolls cul-de-sac streets are local streets and thus have a narrower right-of-way. Small cul-de-sac streets serving clusters of townhouses are intended to be the least travelled of all and thus have the narrowest width.

COLLECTOR STREETS

Glendora Drive is the only street of 'collector' status within the Sugarloaf Planning Area. Glendora will consist of a 60' wide right-of-way. This width allows a travel lane and a bicycle lane in each direction, a parking lane on one side, and sidewalks and planting areas along both sides. The finished roadway, measuring about 1/2 mile in length from Cherrywood to De Anza will be 40' wide from curb to curb. The grade of the roadway varies as it winds up the Hogback; however, at no point does the grade exceed 12%. The speed limit will be 25 M.P.H.



(Revised 2/2/87)

LOCAL STREETS

Parkwood Drive and the two Knolls cul-de-sac streets are local streets with a 50' wide right-of-way. The speed limit along the Parkwood link which extends some 1100' south from De Anza, will be 25 M.P.H. while that on the two 600' long cul-de-sac streets serving the Knolls, should be 15 M.P.H. Planting is shown along both sides of the Parkwood extension but a sidewalk only along the easterly side. Sidewalks and planting are shown along both sides of the cul-de-sac streets on the Knolls. The finished roadway of the Parkwood extension and Knolls streets is 36' wide from curb to curb. This width is sufficient for a travel lane in each direction and parking on one side of the street.

CUL-DE-SAC STREETS

Narrow, private cul-de-sac streets typically serve the townhouse units which are clustered off of the more important streets in the Development Area. They are proposed to consist of a 24' wide finished roadway and are intended to provide one travel lane in each direction. No parking will be permitted in the roadway. Planting but no sidewalks are shown along the sides of these streets. One small loop street between the northerly Knoll and the Hogback is also proposed to have this dimension.

PARKING

Off-street parking is provided in amounts to meet San Mateo City standards. Each of the townhouse units has two lockable garage spaces and sufficient space on the driveway apron for two additional vehicles. Each of the condominium units is provided with one covered garage space. Additional outdoor spaces will be required to meet San Mateo City parking requirements.

On-street parking is provided throughout the Development Area for guest parking. Parking space availability is shown in the Road and Circulation Plan. Within those areas served by the small cul-de-sac streets which have no designated parking lane, special guest parking bays are provided instead.

BICYCLE LANES

A bicycle lane is shown in each direction along the extension of Glendora serving the Hogback. These lanes help complete the overall system planned from Polhemus Road (west of Sugarloaf) along De Anza Boulevard and the Glendora extension to Laurelwood Park and down to Hillsdale Boulevard via the existing dirt road that winds from Laurelwood Park along the south edge of the Laurel Creek dam to Laurelwood Drive.

BUS SERVICE

The General Plan Amendment and Specific Plan locate a bus route entering the Sugarloaf Development Area at De Anza with a pickup point at the Parkwood intersection central to residential development. This route is meant to accommodate school buses from the Belmont School District as well as San Mateo County Transit System buses if demand is sufficient when the Sugarloaf area is fully occupied. At present, the SamTrans bus system 90H line stops at the De Anza/Parrott intersection just west of Sugarloaf.

TRAFFIC ANALYSIS

During the peak commute hours of morning and evening, the Sugarloaf Development Area is estimated to generate a maximum of 194 vehicles. Of this total, 10% is expected to travel through the Laurelwood neighborhood and 90% is expected to travel towards the DeAnza interchange with Highway 92. As the Sugarloaf development is completed, additional traffic from the Laurelwood neighborhood is expected to be attracted through Glendora Drive and Parkwood Drive to the De Anza interchange thus relieving some congestion at Hillsdale Boulevard. The total numbers of vehicle trips involved do not constitute an appreciable change within the Laurelwood Neighborhood.

CONSTRUCTION COSTS

The cost of roads includes the following:

- Curb, Gutter, Sidewalk, Paving

OPEN SPACE AND LANDSCAPE FACILITIES

KEY FEATURES OF THE OPEN SPACE PLAN

1. A Transfer of Development Rights is utilized to shift all development potential to the Hogback and Knolls. As a result the Mountain Cone and Laurel Canyon sectors are preserved in open space.
2. Open space surrounds the Sugarloaf Development Area and separates it from surrounding development.
3. A two-phased plan for open space includes: a) the stabilization of open space and protection from deterioration, and b) restoration of eroded areas and improvements to trails for public access.
4. Native plant varieties utilizing a minimum of care and water are emphasized for landscaping in the Sugarloaf Development Area.

OPEN SPACE CONCEPT

Clustering of development of the more developable portions of the site (Hogback and Knolls), avoiding difficult to build terrain and maintaining significant land forms and vegetation are the key elements of the Specific Plan. By shifting all of the development potential in the entire Planning Area to the Hogback and Knolls and increasing the permitted densities in these areas, the visually prominent Mountain Cone and ecologically sensitive Laurel Canyon areas are preserved. While both the Cone and Canyon are vulnerable to development, such development would be in direct conflict with the adopted Concept Plan and the City's Environmental Resources Management Plan.

The Open Space Plan addresses not only the visual and environmental aspects of open space but also includes the extent to which open space should be protected by gates and fencing, the extent to which work should be done to correct existing erosion and restore vegetation, the extent to which signing and other improvements should be installed to enhance public access and use, and the extent to which manpower should be committed to the site on a continual basis for surveillance and maintenance.

OPEN SPACE LOCATIONS

Open space surrounds and separates all parts of the Sugarloaf development from surrounding development. On the west, a narrow strip of open space parallels Highway 92 and, together with the freeway, constitutes a separation from development west of Highway 92. On the north, the heavily wooded northern slope of the Hogback separates Sugarloaf development from existing residences in the Laurelwood neighborhood. To the south and east of the Development Area are Laurel Canyon and the Mountain Cone. At the extreme southwest is the Pauper's Cemetery currently owned by the County.

Within the Development Area, private open space will surround the condominium complexes.

PROPOSED LANDSCAPING

Once grading has been completed, cut banks and exposed ground areas will be treated by hydromulching with a mixture of native grasses, wildflowers, shrubs, wood fiber and fertilizer. When residential units are completed, top soil must be brought in and finish-graded for drainage. Specimen trees shown in the typical landscape scheme for the Hogback will be planted on the Hogback and Knolls among building groups and along the street frontages. Trees are intended to be native varieties compatible with native oaks, bays and buckeyes.

Special attention to landscaping is suggested for the strip of land along Highway 92 at the western edge of the site and for the condominium site.

On the condominium site generous amounts of landscaping should be used to help incorporate the bulk of the condominium buildings into the graded site[s]. Landscaping in conjunction with earth berms is recommended to screen outdoor parking areas from view along adjacent roads and from existing residential areas in Belmont. Large size specimen trees (2-3 inch trunk diameter) will be planted. A tree maintenance contract until 80% of all units are sold will be required as well as other assurances for landscape maintenance per City policy.

City of San Mateo regulations require that landscape materials be installed equal in value to that of native trees which will be lost due to development activity.

LANDSCAPE COSTS

The cost of landscape installation will include the following:

- Street Trees
- Irrigation

VISUAL OPEN SPACE

Significant value is added to those parts of the development where parks, recreational facilities or views of Laurel Canyon, the Mountain Cone or the northern slope of the Hogback are available. This aspect is an important component of the Specific Plan. Visual open space begins at the main entrance to Sugarloaf at De Anza and this is why the landscape scheme for the future condominium complexes and at the Parkwood and De Anza intersection is important in establishing an image for the remainder of the development.

Nearly all townhouse units are oriented towards views of Laurel Canyon and the Mountain Cone. The design of the condominium complexes should also capture these views. Views of the Mountain Cone from roads within the development area are emphasized and views between building groups should not be obstructed by a solid wall of trees.

From outside of the Sugarloaf Development Area, visual open space is also important. The two areas of particular importance are the northern slope of the Hogback which should be preserved in its natural wooded state, and the western edge of the site along Highway 92 for which landscaping is proposed. An overall impression of the Sugarloaf development is made by what can be seen from the outside.

MANAGEMENT OF THE FREEWAY EDGE OPEN SPACE

Landscaping is required for the strip of land abutting Highway 92 at the western edge of Sugarloaf. This strip is to be dedicated and will become the ongoing maintenance responsibility of the City. Management is proposed to consist of periodic inspection by City Public Works crews and repair as necessary.

MANAGEMENT OF THE PAUPER'S CEMETERY

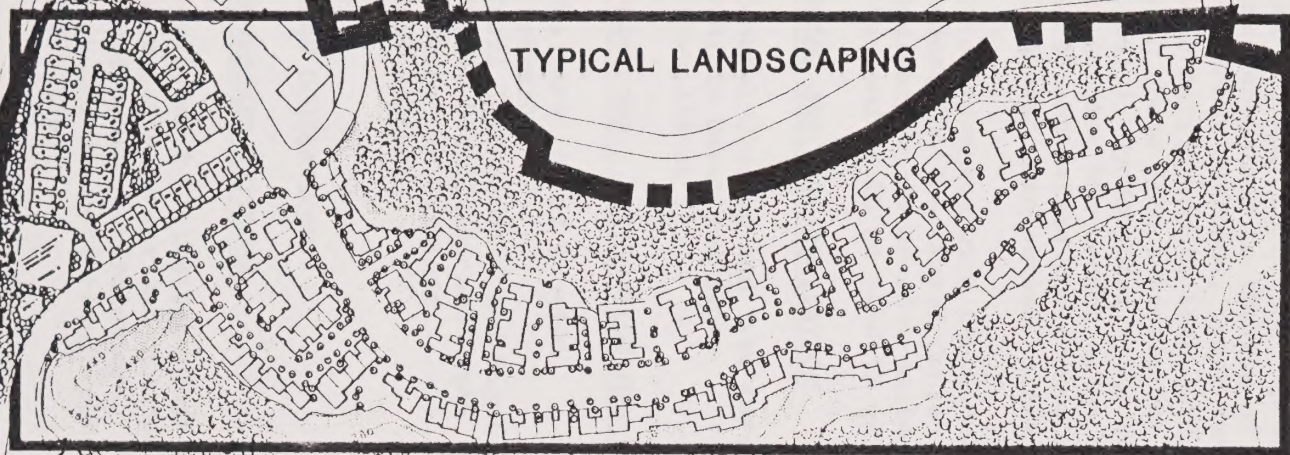
The 5.3 acre Pauper's Cemetery abuts the Cargus Corporation property and is included as part of the overall Sugarloaf Planning Area. Small identification signs and no trespassing signs are recommended for the perimeter of this area. Fencing, consisting of heavy rough wood posts and three level wire is recommended to delineate the perimeter but not obstruct the overall open space visual character of the area. Initial installation and period inspection and repair is the responsibility of the County.

MANAGEMENT OF THE HOGBACK OPEN SPACE

The wooded northern slope of the Hogback is proposed to be maintained by a homeowners association and preserved as much as possible in its natural state. A 15' wide strip adjacent to the back fence line of townhouse clusters on top of the Hogback should be cleared of brush for fire protection and for emergency fire access. It will be replanted by fire-retardant, native plant material for erosion control. Firemen would proceed on foot from the ends of the small cul-de-sac streets. This strip, connecting the cul-de-sac streets is proposed to also serve as an alternate pedestrian way from Parkwood Drive at De Anza to Laurelwood Park. The developer is responsible for initial work in this area including guying and bracing any weak tree limbs. Annual brush removal along the fire strip constitutes maintenance which will be the ongoing responsibility of the homeowners association.

MANAGEMENT OF CANYON AND MOUNTAIN OPEN SPACE

A two-phased plan is recommended for the management of the Laurel Canyon and Mountain Cone open space areas. The intent of the first phase plan, to begin within the first year of any work in the Sugarloaf area, is to stabilize the open space and to prevent further deterioration. The intent of the longer range plan is to restore eroded areas and make improvements for better public access.



SUGARLOAF GENERAL
& SPECIFIC PLAN

OPEN SPACE & LANDSCAPING



NATURAL GRASSLAND AREAS



NATURAL WOODED AREAS



PROPOSED LANDSCAPE TREES

0 400 1200

SCALE IN FEET

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION · COUNTY OF SAN MATEO · CALIFORNIA

(Revised 2/2/87)

The phase one plan consists of guying and bracing any weak tree limbs near the edge of development along the southern edge of the Hogback and around the Knolls, clearing major snags of brush and any abandoned vehicles from the canyon bottom, the construction of heavy metal gates and wing fences at each of the seven major entrances to the Sugarloaf Planning Area to control unauthorized vehicular access, the erection of signs prohibiting motorcycle use and setting forth penalties, and periodic police surveillance to keep out motorcycles. No improvements to existing dirt roads and trails is proposed in the phase one plan.

The phase two plan, to be completed within five years after the Sugarloaf development begins, consists of the correction of serious erosion tracks on the Mountain Cone, the improvement and signing of specific hiking trails in the Canyon and to the top of the Mountain Cone, and the assignment of permanent personnel (park rangers) to maintain trails, provide naturalist information and to keep out destructive vehicles and motorcycles. In this plan phase, the installation of a telephone and toilet facilities (outhouse type) is recommended. The recommended method for restoration of eroded areas is to disc the eroded paths, install horizontal water drainage trenches (water bars) and reseed the ground with native grasses and shrubs. This must be done in a year when normal rainfall is expected.

In conformance with the Concept Plan and General Plan Amendment, land comprising the Laurel Canyon and Mountain Cone open space should be dedicated. As an alternative, a public access easement should be obtained if the land is to be held in private ownership.

PHASE ONE: STABILIZATION

General Cleanup and Tree Care
Vehicle Gates and Signs
Surveillance

PHASE TWO: RESTORATION AND IMPROVEMENTS

Obliteration of Erosion
Reseeding
Trail Improvements and Signs
Toilet Facilities and Phone
Parking for Visitors
Park Rangers

LAND DEDICATIONS

OWNERSHIP PATTERNS

Development of the Sugarloaf area involves the parcelization of land for sale to private owners and the dedication of roads and open space to public and quasi-public jurisdictions. The developer essentially plays an intermediary role and does not retain ownership of land after subdivision, sale and dedication.

All of the residentially designated land on the Hogback and Knolls except for public streets is to be subdivided into individual lots for sale to private owners who will assume maintenance. The ground cover, trees and other landscape features installed by the developer become the responsibility of private owners once the lots are sold. A homeowners association will be created for management of the undeveloped north slope of the Hogback and for management of the narrow private cul-de-sac streets.

Condominium units will be sold to private buyers but the maintenance of buildings and grounds will have to be the responsibility of a homeowners association to which each owner is required to pay a monthly fee. A manager and staff, or a manager with the services of outside firms must be guaranteed by the developer as part of the homeowners association concept to insure the City of proper management.

PUBLIC RIGHTS OF WAY AND UTILITIES

Road rights-of-way serving the Sugarloaf Development Area are shown in the Site Plan on page 36. Major Drainage and Utility systems are shown in the map on page 42. With the exception of the water tank and storm drain outfall lines, all utilities are to be placed underground, in easements, in the street right-of-way. When final construction has been checked by the City and various utility companies, the developer's dedication of these facilities can be accepted. Where storm drain lines or other utilities must traverse private lots, an easement will be dedicated for City or utility company access purposes.

PUBLIC OPEN SPACE

Four acres adjacent to the south boundary of Laurelwood Park are dedicated to satisfy specific 'usable open space' requirements in the City of San Mateo Planned Unit Development regulations. In conformance with the Concept Plan and General Plan Amendment for Sugarloaf, the Laurel Canyon and Mountain Cone sectors should also be dedicated.

PROPOSALS FOR FUTURE SUBDIVISIONS

Tentative and final maps will be processed by the City of San Mateo for all divisions of land which are to occur. The following subdivision policies should be utilized:

General Policy

- All land subdivisions should be in conformance with an adopted General Plan Amendment and Specific Plan for the Sugarloaf area.

Subdivision Policies

- All land subdivisions should follow the zoning designations shown in the zoning map and should be in conformance with San Mateo City Subdivision Regulations. All lots created for townhouse development, condominium sites or public dedication should have frontage on a public right-of-way or an approved private street.

Development Stabilization Policy

- Additional subdivisions of land in the Sugarloaf Planning area beyond the Development Area boundary shown in the adopted Specific Plan should not be permitted by the City of San Mateo.

MAJOR COVENANTS

Several important restrictions are proposed to accompany the deed for townhouse and condominium units. The most significant of these are given below. Complete Conditions, Covenants and Restrictions should be submitted for review by the City staff and attorney prior to City Council approval.

Walls. The structural qualities of common walls and exterior structural walls shall not be altered or damaged and the surfaces of all walls must be kept in good repair.

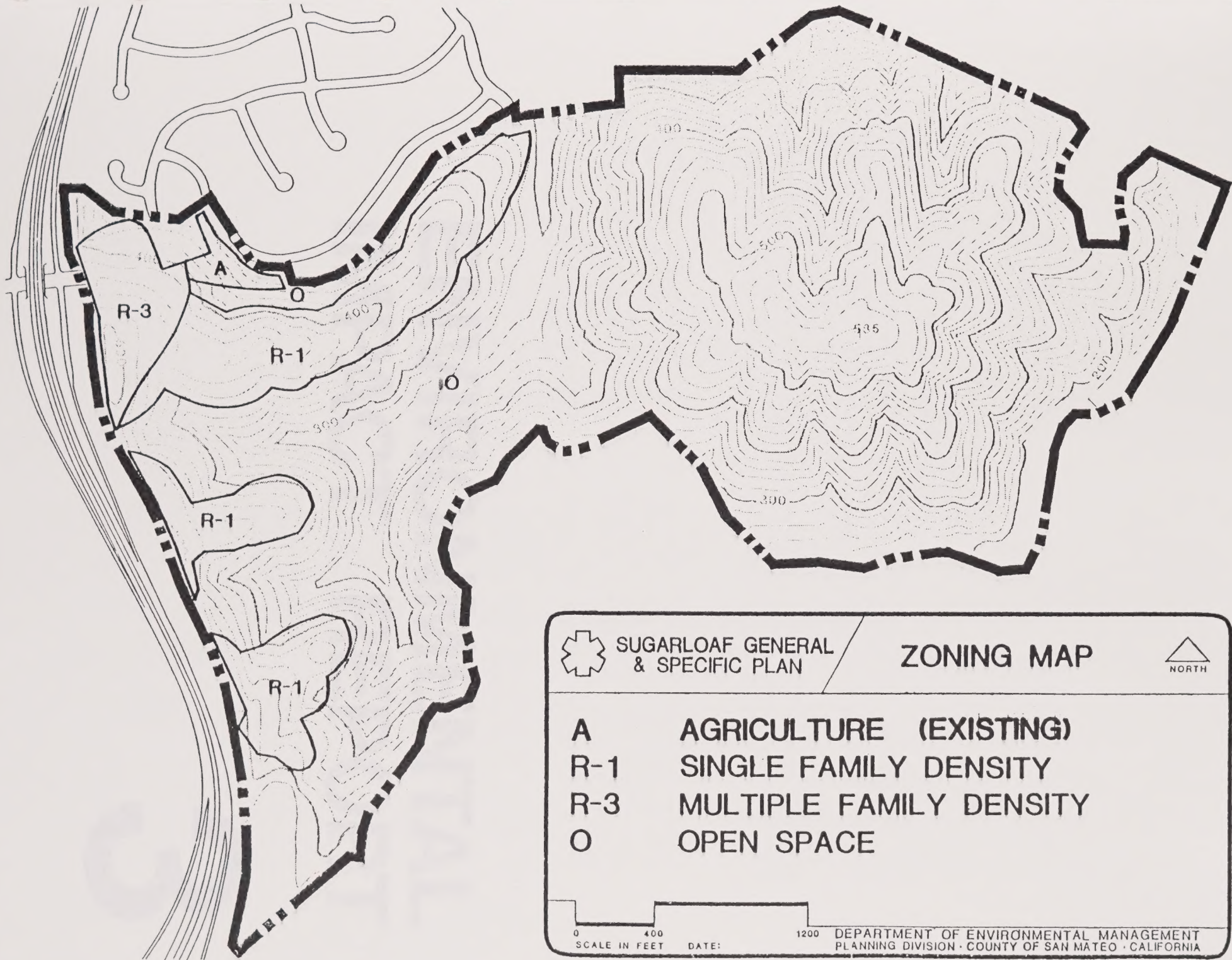
Architectural Control. A homeowners association shall be created and shall review and approve all proposed changes to materials and colors and any new construction.

Residential Units. Each townhouse lot or condominium unit shall be used for a single-family residence only and no business, other than a City-approved Home-Occupation, may be conducted.

Dwelling Location and Size. Setback lines and minimum unit sizes shall be as determined by City of San Mateo standards.

Fences. No fence exceeding 6' in height may be constructed at any location (except around tennis courts) and the height and location of all fences shall be as determined by the City of San Mateo zoning provisions.

Easements. No construction or planting may be done within or over any storm drain easement (s.d.e.), sanitary sewer easement (s.s.e.), tree planting easement (t.p.e.) or public utility easement (p.u.e.) which would damage or interfere with access and maintenance of the easement or which could change the flow of drainage in the easements. In addition, townhouse owners should have the right to enter adjoining property to repair walls, fences, and roofs.



SUGARLOAF GENERAL
& SPECIFIC PLAN

ZONING MAP



A	AGRICULTURE (EXISTING)
R-1	SINGLE FAMILY DENSITY
R-3	MULTIPLE FAMILY DENSITY
O	OPEN SPACE

0 400
SCALE IN FEET

DATE:

1200

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION · COUNTY OF SAN MATEO · CALIFORNIA

ENVIRONMENTAL IMPACT REPORT

3

E.I.R SUMMARY

CONTEXT

This report has been prepared during the second year of a drought; this may affect project viability.

SUMMARY OF EIR

Project Description and Setting

This Environmental Impact Report discusses the environmental impacts of implementing a General and Specific Plan for the Sugarloaf Planning Area. The "project" is defined as the plans themselves, including the physical actions required to carry them out.

Maps and tables in the EIR portray the physical and cultural setting. The EIR references the General Plan and Specific Plan to further describe the project, therefore, the EIR should be reviewed only with the two plans.

Project Impacts

Major environmental impacts will be minimized due to the proposed development of the least environmentally sensitive areas. Temporary construction traffic impacts will occur, but the existing and proposed project street system will have sufficient capacity to handle all project traffic.

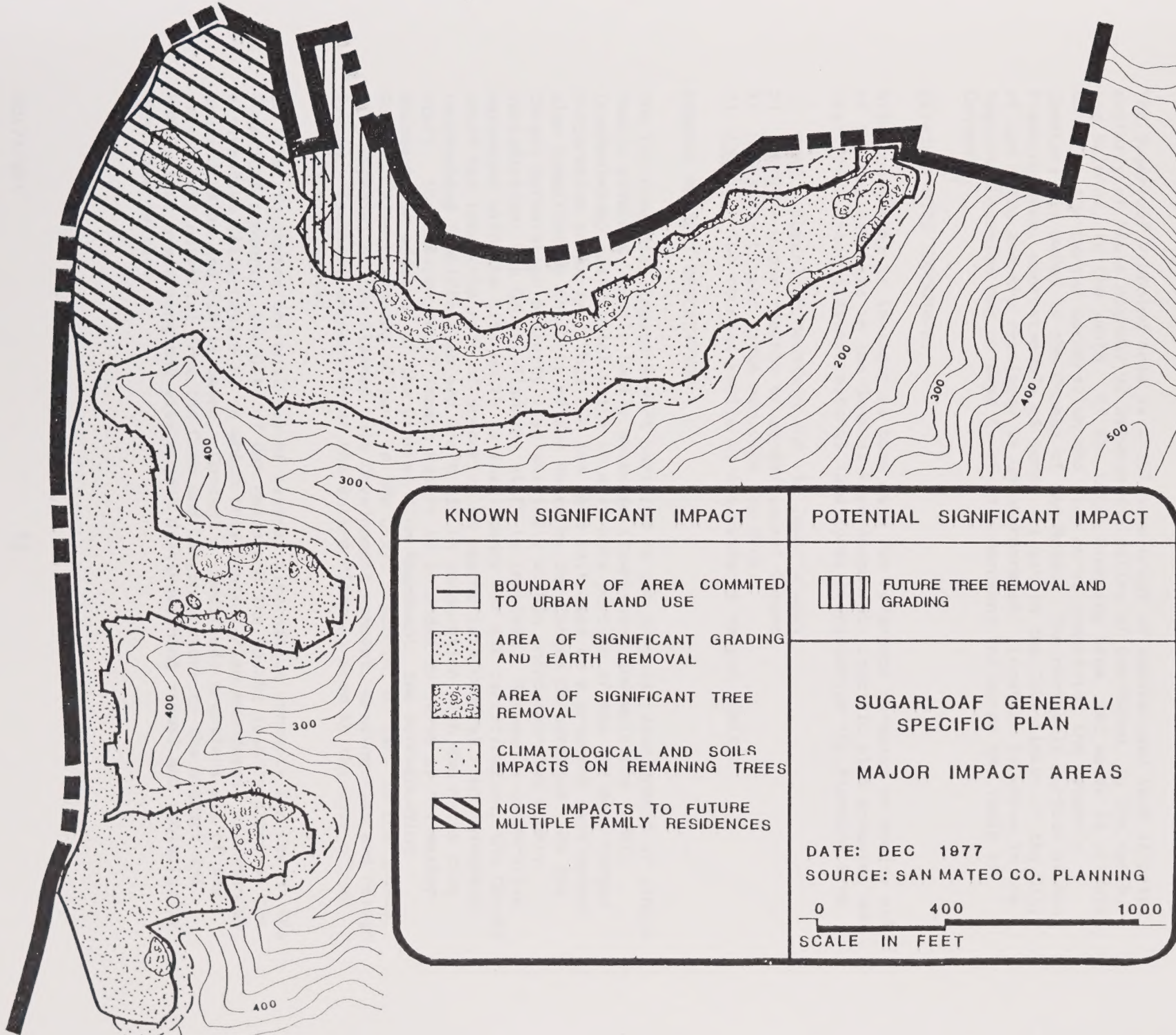
The noise from Highway 92 traffic will impact the future multi-family residences near the De Anza interchange.

There are potential significant impacts of grading and tree removal due to the proposed future development of six single-family lots on Cherrywood Drive.

Mitigation measures for significant impacts are described in the report, and project alternatives analyzed. Short and long term environmental effects, irreversible changes, and growth inducing effects are discussed.

Significant Impacts are removal of a significant number of mature trees from the Hogback and Knolls areas. A very large unique Toyon tree scheduled to be removed may be saved by sensitive site development.

A significant amount of grading and earth removal will take place on the development areas. There will be climatological and soils impacts on trees up to 50 feet downslope of the areas to be graded.



KNOWN SIGNIFICANT IMPACT

-  BOUNDARY OF AREA COMMITTED TO URBAN LAND USE
-  AREA OF SIGNIFICANT GRADING AND EARTH REMOVAL
-  AREA OF SIGNIFICANT TREE REMOVAL
-  CLIMATOLOGICAL AND SOILS IMPACTS ON REMAINING TREES
-  NOISE IMPACTS TO FUTURE MULTIPLE FAMILY RESIDENCES

POTENTIAL SIGNIFICANT IMPACT

-  FUTURE TREE REMOVAL AND GRADING

SUGARLOAF GENERAL/
SPECIFIC PLAN

MAJOR IMPACT AREAS

DATE: DEC 1977

SOURCE: SAN MATEO CO. PLANNING

0 400 1000
SCALE IN FEET

DESCRIPTION OF PROJECT

PROJECT LOCATION

The Sugarloaf Planning Area is a 267 acre tract of undeveloped land situated easterly of State Highway 92 between the cities of San Mateo, to the north, and Belmont, to the south. Of the total Planning Area, 262 acres is privately owned by the Cargus Corporation and five acres comprising the Pauper's Cemetery, is owned by the County of San Mateo. The northerly portion of the Planning Area, approximately 66 acres, is within the City limits of the City of San Mateo and the remainder is unincorporated. Location is shown in the Regional Location Map on page iv of this document following the Table of Contents.

DETAILED SITE TOPOGRAPHY

Site topography is included as base data for reference purposes on nearly all of the map exhibits in the General Plan Amendment, Specific Plan proposal and Draft EIR. Four distinct natural land forms characterize the Planning Area.

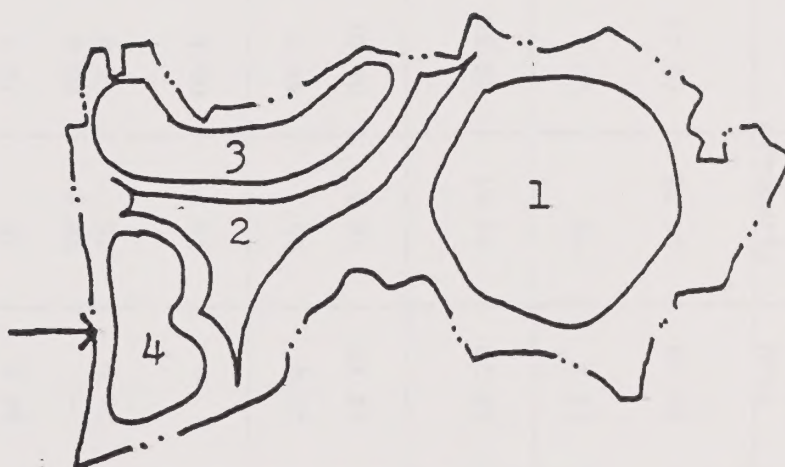
- 1) CONE - Sugarloaf Mountain and its lower slopes.
- 2) CANYON - Upper reaches of wooded Laurel Canyon.
- 3) HOGBACK - Linear ridge opposite the Cone.
- 4) KNOLLS - Two rounded knolls at the westerly canyon limit.

GENERAL PROJECT DESCRIPTION

The Environmental Impact Report pertains to the proposed development of single family detached, single family attached (townhouse) and multiple family (condominium) residential units on a 48 acre portion of the 262 acre Cargus Corporation property. This EIR has been initiated by a proposed development plan submitted to the City of San Mateo by the Cargus Corporation. As the Cargus Corporation property lies partially within unincorporated County jurisdiction; the County Planning staff is involved. Through a cooperative agreement with the City which is lead agency for EIR certification, the County staff has taken the role of preparing an appropriate General Plan Amendment, recommended Specific Plan and draft EIR in cooperation with San Mateo city staff. The Environmental Impact Report is intended to serve as the master document for adoption of the General Plan Amendment, the corresponding Specific Plan, rezoning of land in the City, rezoning of land in the County, City approval of the Planned Unit Development concept, Grading Plan and Design Review. Eventual annexation of the entire Planning area to the City of San Mateo is anticipated.

In 1976, following the analysis of several alternative concepts for use of the Sugarloaf property, the City of San Mateo and the County jointly approved the alternative (Alternative A) on which this General Plan Amendment, recommended Specific Plan and EIR is based. Concept A (modified) transfers all of the development potential from the Cone and Canyon sectors to the Hogback and Knolls thus preserving the site's most distinguishing visual and ecologically sensitive sectors.

Sugarloaf
Planning Area
Boundary



LAND USE AND DENSITY: TABLE 1

	LAND USE	TECHNICAL DATA							
		Acresage++	% Total Cargus Property	% Total+ Develop. Area	No.*** Dwell'g Units	% Total DU's	DU's/Acre Total Cargus Property	DU's/Acre+ Develop. Area	DU's/Net Res. Ac.
R E S I D E N T I A L	Single-Family Attached (Townhouse)	27.07	10.33	60.56	273	86.39	1.04	6.11	9.30*
	Multiple-Family (Condominium)	.95	.36	2.13	43	13.61	.16	.96	12.29**
	Subtotal	28.02	10.69	62.69	316	100.00	1.20	7.07	9.62
R O A D S	Public Streets	10.40	3.97	23.27					
	Private Streets	1.46	.58	3.27					
O P E N S P A C E	Open Space/San Mateo City PUD Requirements	4.00	1.53	—					
	Private Open Space Condominium Area	2.55	.97	5.70					
	Hogback North Slope	8.00	3.05	—					
	47 Townhouse Units (incl. tennis courts)	2.27	.87	5.08					
	Open Space/Concept Plan A (Cone & Canyon)	205.35	78.36	—					
	T O T A L S	262.05	100.00	100.00	316	100.00	1.20	7.07	9.62

* 273 DU's on 27.07 acres+2.27 open space acres

** 43 DU's on .95 + 2.55 (open space) acres

*** Minor changes in number of units within the various residential types will be permitted as long as the total number of allowable units (316) is not exceeded.

+ Gross Development Area = 44.7 ac.; includes development but not 4 ac usable open space requirement, hogback, cone or canyon.
++ Total Cargus Property = 262.05 ac.; planning area boundary also includes the 5.37 acre Pauper's Cemetery.

Within the overall Sugarloaf Planning Area of 267 acres is the Development Area of some 48 acres. Development Area is defined in the Specific Plan to consist of all land over which building occurs or on which grading is performed for development purposes. The following land uses and quantities are recommended in conformance with Concept A:

TABLE II: Land Use

GENERAL PLAN LAND USE	ACREAGE	% OF TOTAL PLAN AREA
DEVELOPMENT AREA		
Single Family Residential	27.9	10.4
Multiple Family Residential	1.9	0.7
Private Open Space (condominiums)	7.4	2.8
Public Streets	10.4	3.9
Subtotal	47.6	17.8
UNDEVELOPED		
Private Open Space (Hogback)	5.1	1.9
Open Space (Cone and Canyon)	205.3	76.8
Public Open Space (Recreation)*	4.0	1.5
Pauper's Cemetery	5.4	2.0
Total	267.4	100.0

* 4 acres are required for usable open space per City of San Mateo. The remaining Canyon and Cone open space is required per Concept A.

A total of 790 bedrooms are proposed to be constructed in the 48 acre Development area. Of the total bedrooms, approximately 60% are to be contained in one and two-story townhouse units located on the Knolls and along the Hogback. The remaining 40% of the bedrooms are to be contained in condominium complexes near the De Anza Boulevard connection with Highway 92. These higher intensity uses are to be housed in buildings limited in height to three stories over parking.

Off-street parking for the project is proposed to meet San Mateo City standards. Single Family units each have two, lockable garage spaces and sufficient space on a 20 foot long driveway apron for two additional vehicles. The Condominium units are proposed to have one covered space and additional uncovered space will be required to meet City standards.

The total development is proposed to be phased over approximately five, 1 to 1 1/2 year increments. Grading during any one phase will be generally limited to that required for that phase only. Specific site and building designs have been submitted only for the townhouse units which comprise the first three phases of development. Condominium units and six, single-family detached units to be constructed in the latter two phases will be subject to the review of site and building plans to be submitted later.

At this point in time, approval of the Specific Plan will establish the following limits for the condominium construction phases:

- 1) Zoning
- 2) Maximum site coverage
- 3) Maximum building height
- 4) Maximum number of bedrooms
- 5) Minimum parking requirements
- 6) Design and visual constraints
- 7) General Grading Plan

At this point in time, only the lot lines and lot areas have been proposed for the six proposed Single Family Detached units. Two lots are shown fronting on Parkwood and four on Cherrywood. The proposal is to design custom homes to minimize grading and to preserve trees.

Townhouse and Single Family Detached units are proposed to be sold in the \$120-150,000 range while the Condominium units are proposed to be sold in the \$85-125,000 range.

Circulation is oriented primarily to the De Anza interchange with Highway 92. Vehicular access to the Sugarloaf Development Area is proposed to be provided by the extension of Glendora Drive to De Anza Boulevard forming a 40 foot wide circulation 'spine' along the hogback. An extension of Parkwood Drive southward from its connection with De Anza is proposed to serve the Knolls. The extension of Parkwood and the cul-de-sac streets serving the knolls are proposed to be 36 feet wide. Narrower, 24 feet wide cul-de-sac streets lead from the hogback spine to major cluster of townhouse units are proposed to have direct driveway access to the Hogback spine.

All utilities will be placed underground in the Sugarloaf development. One exception is a new water tank which will be located at the southwest corner of the Development Area.

No connection from Sugarloaf to any streets in the City of Belmont is planned.

ENVIRONMENTAL SETTING

PRESENT LAND USE AND ZONING

The Sugarloaf Planning Area is presently undeveloped except at the extreme northwest corner where Parkwood Drive and De Anza Boulevard intersect within the area boundary. Hillside residential development surrounds the Planning Area.

General Plan Designation. The Sugarloaf site is designated Open Space in the County General Plan and is shown for medium/low density residential development in the San Mateo City General Plan.

Zoning Designation. Existing County zoning for the unincorporated portions of the Sugarloaf site is RE/SS-10 (large lot residential). The portion of the site which is within the San Mateo City limits bears two designations: within the triangle formed by Parkwood Drive, De Anza Boulevard and Highway 92, the zoning is R1-B (Residential); the remainder is zoned A-1 (agriculture).

PRESENT CIRCULATION PATTERNS

State Highway 92 (19th Avenue Freeway) abuts the Sugarloaf site along the western site boundary and carries traffic between Highway 101 (Bayshore Freeway) and Highway 280 (Junipero Serra Freeway). Major road intersections with Highway 92 exist at Hillside Boulevard to the north and at Ralston Avenue to the south. An existing connection from Highway 92 to De Anza Boulevard, which is listed as a Secondary Road in the San Mateo City General Plan, will provide the principal access to the Sugarloaf Development Area. Parkwood Drive and Glendora Drive, both originating in the City of San Mateo will provide additional access.

AVAILABILITY OF SERVICES AND UTILITIES

All services and utilities are generally to be provided by the City of San Mateo or by outside agencies which normally serve the City. Construction of water lines, sewer lines, storm drains and a proposed water storage tank is the responsibility of the developer.

a) Water. The California Water Service supplies water to the City of San Mateo. Insufficient capacity exists in the lines which presently serve the residential areas surrounding Sugarloaf to meet the additional service demand of proposed development.

To provide an adequate reserve level for both domestic water use and for fire safety in the entire area, a one million gallon storage tank is to be constructed on the Sugarloaf site. Water to the tank will be brought from De Anza and the tank will be interconnected with the Sugarloaf system and the existing system serving residential areas to the west and north of the Sugarloaf Planning area.

b) Sewer. All sewage generated by the development is to be collected in a combined gravity and force flow system provided by the developer and carried to an existing 15" diameter sewer main stub near Glendora and Cherrywood Drive. From here the flow continues along the main through Laurelwood Park to Laurelwood Drive and on to the San Mateo City Sewage Treatment Plant.

c) Natural Gas and Electricity. Connections to the Sugarloaf Development Area are to be made from existing Pacific Gas and Electric Company supply lines in the Laurelwood area.

d) Telephone. Connection to the Sugarloaf Development area is to be made by extending the existing trunkline from Glendora Drive.

e) Solid Waste. Refuse collection is mandatory in the City of San Mateo. Waste material from residential sources is collected on a regular basis by the San Mateo Scavenger Company and carried to the Marsh Road landfill site for disposal. Garden trimmings are collected in conjunction with the Scavenger Company by separate from refuse collection for disposal at the San Mateo Dump site.

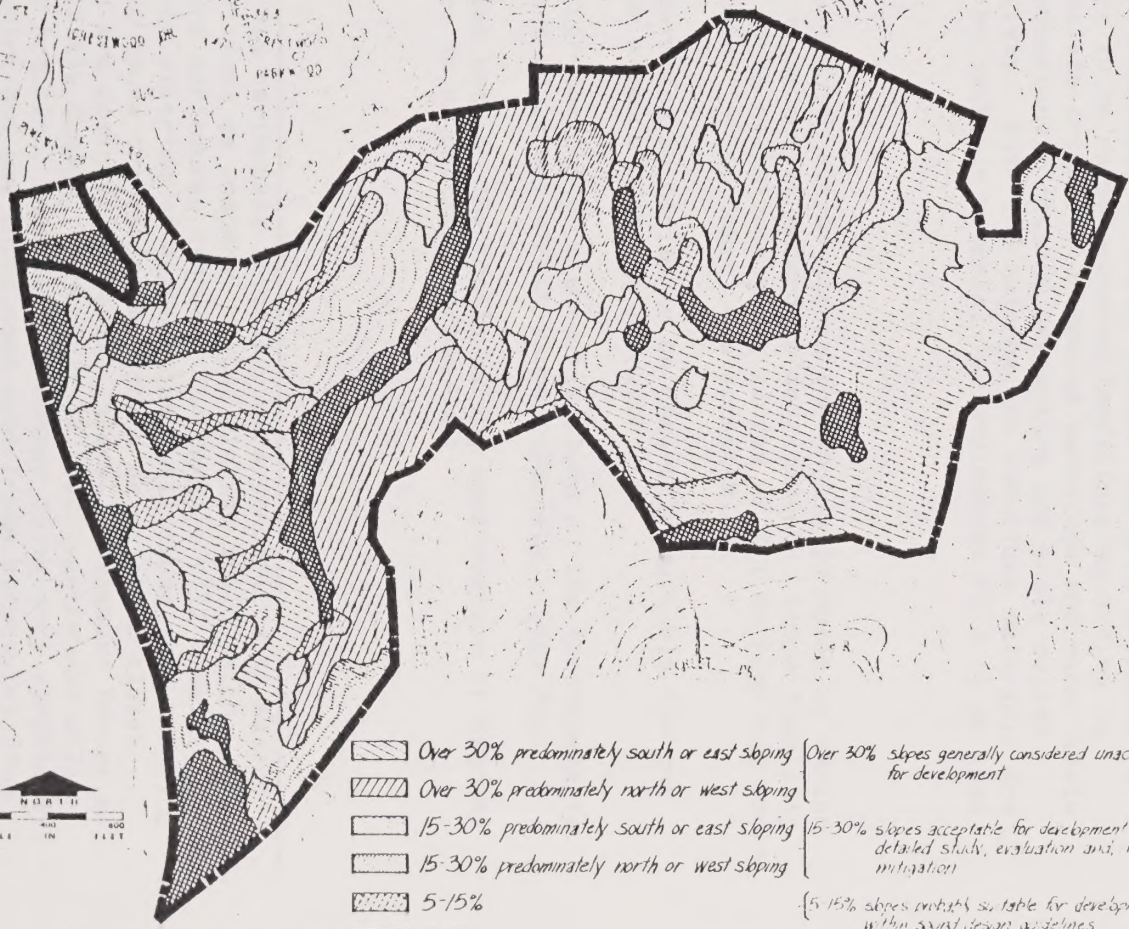
f) Police Protection. Police services to the Sugarloaf Development Area will be provided by the City of San Mateo. The police department presently consists of 109 sworn officers and approximately 40 civilian employees citywide. Central headquarters is located at the intersection of Highway 92 at Delaware Street. Response time to the De Anza/Parkwood intersection is estimated to be three minutes in an emergency and five to six minutes under routine conditions.

g) Fire Protection. Fire services to the Sugarloaf Development Area will be provided by the City of San Mateo. The City Fire Department presently consists of 96 firemen directed by a chief and an assistant chief, and 12 support employees. Fire Station #7, located at De Anza just west of Highway 92 has one, continuously manned, 1500 gallon per minute pumper engine, an unmanned 100' aerial truck and ground ladders capable of reaching three story buildings where trucks cannot gain close access to buildings. A captain, two firemen and one reserve are stationed at Station #7. Response time from the main station at 27th and Edison is estimated to be 5 to 9 minutes while that from Station #7 is estimated to be less than three minutes. It is assumed that an existing automatic aid agreement between the cities of San Mateo and Belmont will continue during the life of Sugarloaf Development. This will include the aid of the County for fighting wild fires in the Canyon and Cone areas.

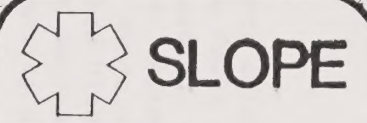
h) Schools. The project area is, at present, largely within the Belmont School District. A boundary revision may be appropriate at some time in the future when the Sugarloaf Development area is occupied for the convenience of residents.

i) Hospitals. Several large hospitals are available to serve the Sugarloaf development. San Mateo County General Hospital (190 bed capacity) is located on West 37th Avenue; Mills Memorial Hospital (397 bed capacity) is located on San Mateo Drive and Kaiser Foundation Hospital (207 bed capacity) is located on Veteran's Boulevard in Redwood City. All have emergency provisions. An emergency resuscitation unit can be summoned from the main San Mateo Fire Station (5 to 9 minute response) and three ambulance services are located in the immediate San Mateo/Belmont area. The nearest Medi-vac unit is located at 19th and Delaware (7 minute response time).

j) Parks and Recreation. The Sugarloaf Development Area abuts Laurelwood Park which is located near the Glendora Drive/Cherrywood Drive intersection. The park comprises a relatively undeveloped flat area with some wooden structures for children to climb on, and serves as a potential trail head to Laurel Canyon and the Mountain Cone. A plan for the improvement of the park (picnic facilities, planting and amphitheater) has been prepared but is yet unadopted by the City of San Mateo. Within a short distance from the Sugarloaf Development Area are elementary, intermediate and high school playgrounds, the College of San Mateo, the County Library and other City parks. The nearest County park facility is Coyote Point. Coastal beaches are 35 minutes travel westward on Highway 92.



- | | | |
|--|--|--|
| | Over 30% predominately south or east sloping | { Over 30% slopes generally considered unacceptable for development |
| | Over 30% predominately north or west sloping | |
| | 15-30% predominately south or east sloping | { 15-30% slopes acceptable for development only after detailed study, evaluation and, if necessary, mitigation |
| | 15-30% predominately north or west sloping | |
| | 5-15% | { 5-15% slopes probably suitable for development within sound design guidelines
0-5% slopes generally considered suitable for development |
| | 0-5% | |



SLOPE

**SUGARLOAF
GENERAL &
SPECIFIC
PLAN**

DEPT. OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION
SAN MATEO COUNTY - CALIFORNIA

GEOLOGIC CONDITIONS

The Sugarloaf site is located in the Coast Range Geologic Province which is dominated by the northwest trending San Andreas Fault Zone. The fault trace lies about 6000' west of the site, and although not actively creeping, has a history of moderate earthquakes and infrequent major earthquakes. According to the geotechnical investigations conducted by R.C. Harlan and Associates (see bibliography) for the Sugarloaf development, it is considered highly probable that a large magnitude earthquake will occur on the San Andreas Fault during the lifetime of the proposed development. A Mercalli Intensity of VIII-IX is the expected maximum.*

The Sugarloaf site is underlain by Franciscan Formation rocks which are generally covered with a thin layer of soil. Within the area proposed for development there appears to be no deep-seated landslides according to Harlan. The Hogback consists primarily of bedded sandstone and minor shale while the Knolls are predominantly sheared serpentine and shale called 'melange' by most geologists. Both the melange and sandstone materials are considered by Harlan to be suitable material for engineered fill to be used on-site or exported.

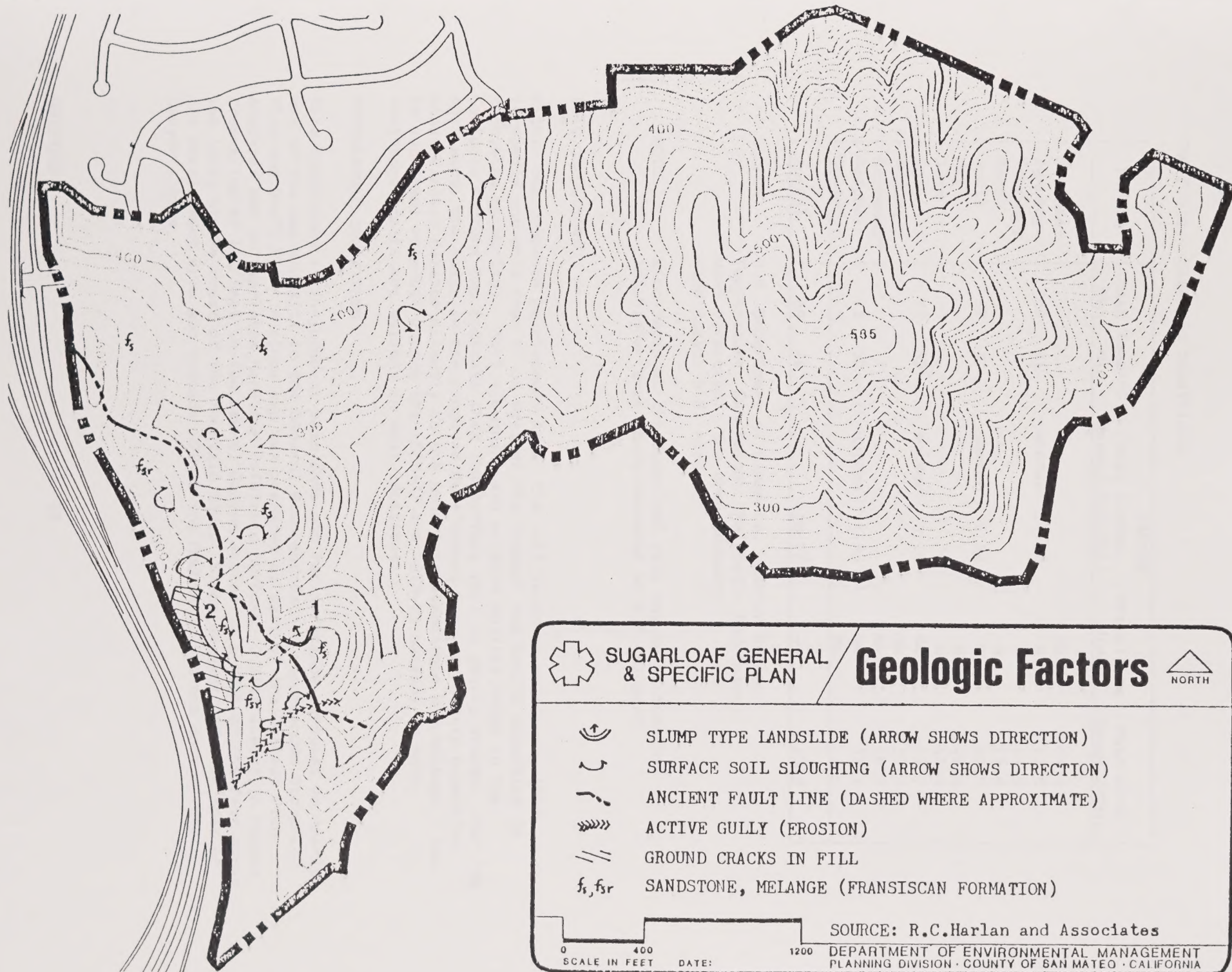
SITE STABILITY

An ancient, inactive fault which slices across the Knolls is noted by Harlan but considered to pose no potential hazard to development. Slope stability is considered by Harlan to be relatively good; slopes of 2:1 on high cut banks and 1 1/2:1 on low cut banks (8' or lower) are acceptable.

Although the site is determined by Harlan to be generally suitable for the proposed development, two areas of concern are noted:

- 1) Excavation of the upper portion of a possible slump on the northeasterly portion of the southern Knoll may affect slope stability. (See Map)
- 2) An area of fill placed between the Knolls during construction of Highway 92 in 1966-67 appears to be unstable. (See Map)

* The Mercalli scale defines earthquake intensity at a specific site having particular geologic conditions as compared to the Richter scale which expresses magnitude at the earthquake center. The Mercalli VIII level earthquake will affect the steering of automobiles, will cause some breaking of tree branches and will cause cracks in wet ground or on steep slopes. Buildings and walls which are designed to resist lateral earthquake forces will experience shaking but little damage. A Mercalli IX level earthquake will cause conspicuous ground cracking, considerable damage to masonry structures, serious damage to reservoirs and may shift some wood frame structures from their foundations.



SUGARLOAF GENERAL & SPECIFIC PLAN

Geologic Factors



SLUMP TYPE LANDSLIDE (ARROW SHOWS DIRECTION)



SURFACE SOIL SLOUGHING (ARROW SHOWS DIRECTION)



ANCIENT FAULT LINE (DASHED WHERE APPROXIMATE)



ACTIVE GULLY (EROSION)



GROUND CRACKS IN FILL

f_s, f_{sr}

SANDSTONE, MELANGE (FRANSISCAN FORMATION)

0 400
SCALE IN FEET DATE:

1200 SOURCE: R.C.Harlan and Associates
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION · COUNTY OF SAN MATEO · CALIFORNIA

TABLE III: Climatic Conditions

Period	FACTOR					Mean Wind Speed (MPH)
	Mean Temp °F Max. Min.	Total Inches Normal Rainfall	Prevailing Wind			
December					SE	14.4
January	58	41	winter	11.90	W	11.0
February					W	13.9
March					W	16.6
April	67	47	spring	5.28	W	18.5
May					W	18.5
June					W	16.5
July	77	53	summer	0.16	NW	19.7
August					NW	17.3
September					NW	16.6
October	73	50	autumn	3.43	NW	15.1
November					NW	
Annual	69	48		20.77	—	15.9

Source: U.S. Department of Commerce, Weather Bureau.
 Temperature: San Mateo; Rainfall: San Mateo;
 Wind Direction: Bay Area Summary;
 Wind Speed; S.F. Airport.

NOTE: Wind speed at the Sugarloaf site may be as much as
 10% higher than where measured at S.F. Airport.

SOIL CONDITIONS

Within the proposed Development Area, the soil layer is relatively thin (probably not more than 5' on most of the Hogback and Knolls according to trenching by Harlan). Soil sloughing and erosion gullies noted in the Geologic Factors Map indicate that the surface soil is easily eroded. For the most part, the soils in the proposed Development Area are highly expansive, plastic clays related directly to the underlying sandstone and melange. Due to subnormal rainfall during the 1976-77 and 1977-78 seasons to date, shrinkage cracks are evident in most locations.

TOPOGRAPHIC CONDITIONS

Site topography is included as base data and for reference purposes on nearly all of the map exhibits in the General Plan Amendment, recommended Specific Plan and Draft EIR. A slope map was prepared as part of the Concept Plan analysis and is reprinted here for reference purposes. Site elevation ranges from a low of 180 feet in the Laurel Canyon sector to a high of 585 feet above sea level at the crest of the Mountain Cone. Slope exceeds 15% over most of the development area and exceeds 30% on the Mountain Cone and most of the Canyon slopes.

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CLIMATIC CONDITIONS

The Sugarloaf site lies just south of the line of predominant fog penetration and in the path of fairly constant prevailing north and northwest winds. The result is evidenced by grassland and tree deformation growth on the exposed ridges while the protected canyon and leeward slopes are more normally wooded. The site receives relatively low annual rainfall due to the higher elevation Coast Range to the west which forces moisture laden air from the Pacific Ocean to drop precipitation before moving inland. Climatic conditions at Sugarloaf are affected by proximity to the coastal air flows in that the high temperatures are generally lower and low temperatures generally higher than more inland locations like Redwood City. A summary of climatic conditions is given in Table III.

HYDROLOGIC CONDITIONS

No ground water was encountered in any of the nine, representative, exploratory trenches that were opened for the Geotechnical Investigation conducted by R.C. Harlan and Associates in late August, 1977. The investigation report, however, notes that moisture was evident in the weathered rock at depths as shallow as three feet and that melange typically becomes saturated during the winter months. Drainage pipe is recommended under any fill areas and wherever seeps are encountered in the deeper cuts proposed by the Grading Plan. Several possible springs can be observed in the Sugarloaf Planning Area as evidenced by moist ground and green grass despite drought conditions. During their Arboricultural field investigation in late September of 1977, Forest Ag (See Bibliography) found two particularly moist areas on the northern side of the Hogback near the proposed edge of grading. One location is about midway along the Hogback and the other near the easterly end.

All drainage from the proposed Development Area currently flows into the Laurel Creek system and past the southerly edge of Laurelwood Park to the Laurel Creek dam.

Storage capacity of the dam is 24.7 acre feet to the spillway height of 25' where a 30" outflow pipe is located. The 1968 Laurel Creek Drainage Basin Study prepared by the City of San Mateo reported an average storm flow of about 94 cubic feet per second to the dam and a 200 cubic feet per second capacity in the Laurel Creek channel easterly of the dam. (See Impact Section for more detail.)

According to USGS Basic Data mapping, the potential yield of groundwater from the Sugarloaf site to support development is very small. There is reportedly only a 68% chance that the maximum yield will be .5 to 5 gallons per minute from any well drilled on the site.

AIR QUALITY

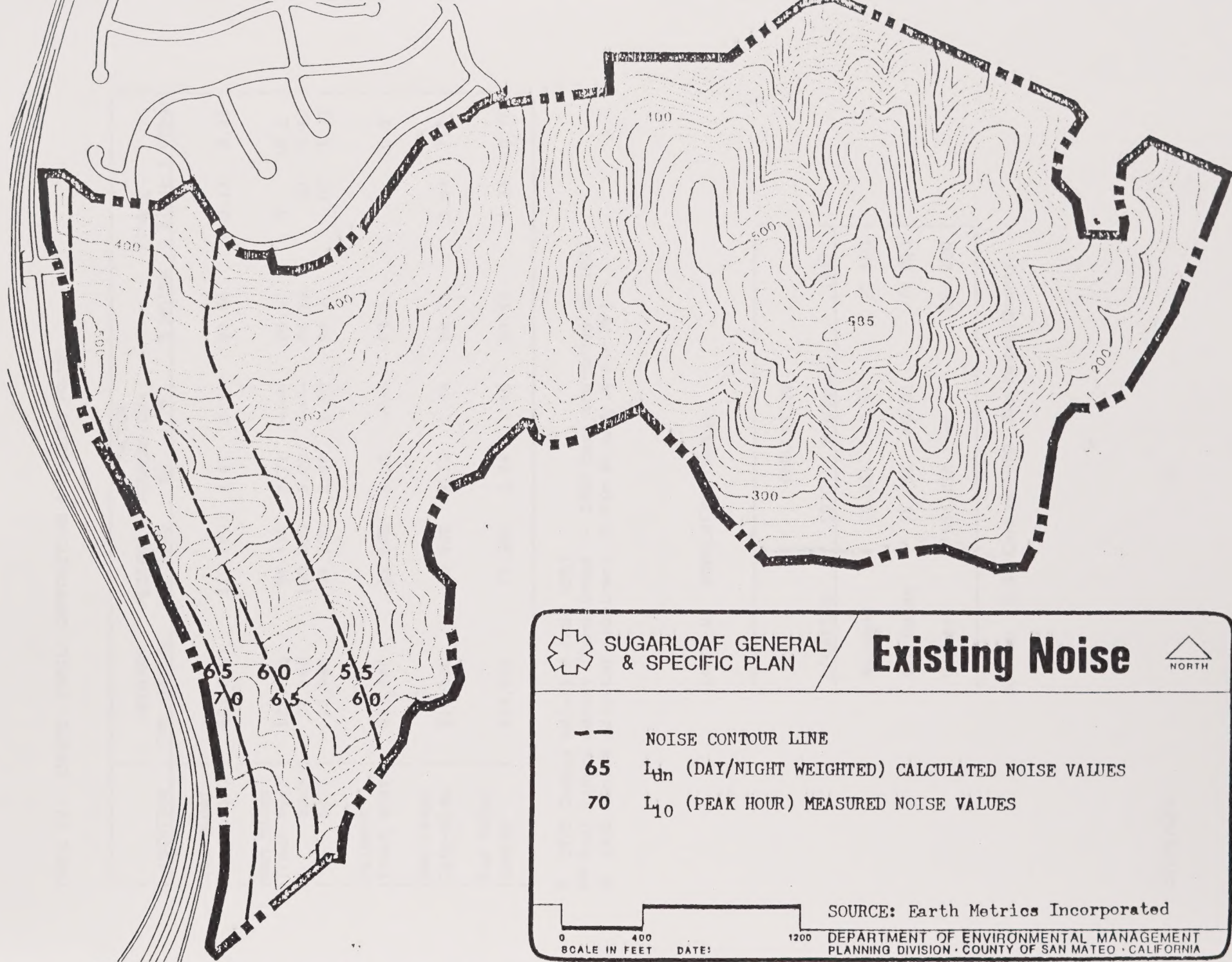
Ambient air quality is monitored by the Bay Area Air Pollution Control District (BAACD) and summarized in annual tabulations. The BAACD publication, Guidelines for Air Quality Impact Analysis of Projects enables one to estimate the effects of a given project on existing air quality. Both state and federal standards have been developed to establish safe levels. Wherever some variation between these standards is found, the stricter standard has been used. Although five major pollutants are monitored by BAACD, the Sugarloaf proposal involves only the three closely associated with automobile exhaust: carbon monoxide, non-methane hydrocarbons, and total suspended particulates. The health effects of these pollutants is discussed in the Air Resources Board Fact Sheet 38 as follows: Exposure to concentrations of carbon monoxide interferes with the central nervous system, impairs vision, causes headaches and strains the heart; oxidants have been found to increase airways resistance in the lungs and to lower the body's resistance to disease; particulate matter irritates the respiratory system. Air quality standards as well as estimated project impacts are presented in the Impact Section and in Table XVII.

NOISE CONDITIONS

Locally generated noise from vehicles on residential streets is nominal however the background level from traffic along Highway 92 effects all parts of the proposed Development Area. Noise levels are most pronounced at the westerly side of the Sugarloaf site where the site abuts the freeway right-of-way. Proposed residential uses on both Condominium and Knolls sites would be affected. Noise standards established by the U.S. Environmental Protection Agency recommend no greater than 60 L_{dn} for residential areas. The San Mateo City General Plan Noise Element recommends no greater than 70 L_{dn} (day/night weighted) and L10 (peak hour) measurements area based on the decibel (dBA) scale. Existing Noise Contours were plotted by Earth Metrics Incorporated (See bibliography) and are shown on the accompanying map.

SOCIOECONOMIC CONDITIONS

A review of available census data, real estate market trends and data from utility company meters indicates that the San Mateo hill areas attract primarily a high-middle income, white resident, that transiency throughout the mid-peninsula is very low and that family size has dropped since the 1970 census. Census and real estate data indicate that the City of San Mateo has grown in population at a much smaller rate than neighboring Belmont or than the rest of San Mateo County. This can be attributed to somewhat to minimal new construction in San Mateo and somewhat to housing prices. The following tables summarize these factors.



SUGARLOAF GENERAL
& SPECIFIC PLAN

Existing Noise



NOISE CONTOUR LINE

65

L_{dn} (DAY/NIGHT WEIGHTED) CALCULATED NOISE VALUES

70

L_{10} (PEAK HOUR) MEASURED NOISE VALUES

0 400
SCALE IN FEET

DATE:

1200

SOURCE: Earth Metrics Incorporated

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION • COUNTY OF SAN MATEO • CALIFORNIA

TABLE IV: INCOME, FAMILY COMPOSITION & HOUSING VALUE

LOCATION	MEDIAN* FAM. INCOME	MEDIAN** VALUE/DU	FACTOR PERSONS/DU+		ETHNIC		
			SF	MF	% White	% Black	% Other
Sugarloaf Tract 6070	\$26,600	119,300	2.81	2.31	93.56	0.11	6.33
San Mateo Tract 6067	\$25,535	98,370	2.71	—	89.8	0	10.2
6068	24,160	100,200	3.00	—	96.16	.21	3.62
6071	22,980	84,700	2.84	2.60	96.2	.07	3.73
Belmont Tract 6088	\$22,345	97,500	3.03	—	89.5	.2	10.3
San Mateo City-Wide	\$18,230	80,900	2.71	1.44	88.76	3.54	7.7
San Mateo County	\$18,510	72,500	2.84	1.46	84.88	4.36	10.76

* 1970 Census adjusted (add 40%)

** Real Estate Market Trend Index — 1967 base projected to 1977

+ 1970 Census adjusted (subtract .5 for SF and .4 for MF)

TABLE V: POPULATION CHANGE

LOCATION	POPULATION		
	1970	% change	1977
Belmont	23,667	+7.9	25,550
San Mateo	78,991	+0.01	79,000
County	556,234	+5.1	584,600

Source: U.S. Census 1970; San Mateo County

TABLE VI: DWELLINGS AND VACANCY RATE

LOCATION	OCCUPIED DU's				VACANT DU's		
	#DUs 1970	% Growth	#DUs 1977	1970	% Vacant	1977	% Vacant
Mid-Peninsula	113,128	13	129,981	1057	0.9	1139	0.9

Source: Electric meters — San Mateo County

TABLE VII: VALUE OF TREES WITHIN THE AREA PROPOSED FOR DEVELOPMENT

LOCATION	TOTAL VALUE
Hogback (north side)	\$231,532
Hogback (south side)	2,388
Condominium Site	35,129
Knolls	93,001
TOTAL	\$362,045

Source: Forest Ag; based on "A Guide to the Professional Evaluation of Landscape Trees, Specimen Shrubs and Evergreens", Rev. III, 1975.

TABLE VIII: SUMMARY OF ABORICULTURAL STUDY FINDINGS

FACTOR	LOCATION			CONDO. SITES	KNOLLS SITES
	HOGBACK - PARKWOOD TO GLENDORA				
	Parkwood Sectors A-D	Central Sectors E-H	Glendora Sectors I-L		
Concentration of trees with high aesthetic value to structure, age and health.		X	X		
Concentration of trees showing evidence of wind exposure (dwarfing, broken branches).	X				X
Concentration of trees showing evidence of Oakworm infestation causing defoliation.	X			X	X
Concentration of trees showing drought type rots (live oak decline, wilt decline) — upper slopes.	X	X	X	X	X
Concentration of trees showing moisture induced rot — lower slopes.		X			
Concentration of heavy overgrowth on steep slopes suppressing new growth.		X	X		

Source: Forest Ag.

The vegetation of the study area is, in part, a remnant of a once continuous natural system which covered the eastern slopes of the Santa Cruz Mountains. Many of the hills in the vicinity which are now developed

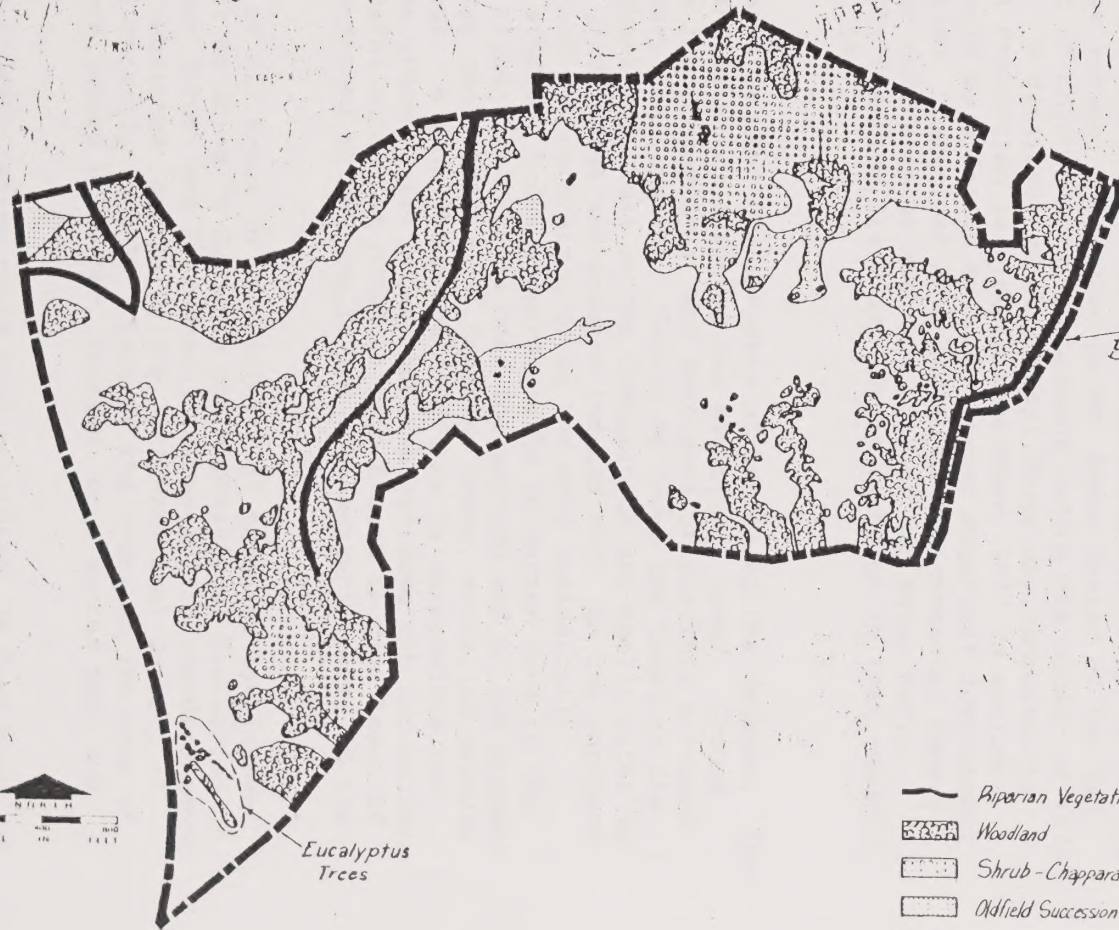
were once similar to Sugarloaf as it now appears. Study area field investigations, combined with natural color photographic interpretations, were used to delineate the vegetation map and to make the following interpretations.

VEGETATION TYPE	LANDSCAPE CHARACTER	ATTRACTIVENESS TO WILDLIFE	GENERAL WILDLIFE SPECIES
<u>Riparian</u> occurring along an apparently intermittent stream, characterized by willow, western pine-bark, elderberry, cattails and other species.	Thick intermingling of medium height (5') vegetation.	Provides water source for all drinking species on site.	Turkey vulture, red-tailed hawk, California quail, mourning dove, bush-tit, Bewick wren, ground squirrel, white-footed mouse and black-tailed deer (which is declining due to loss of habitat and human disturbance.)
<u>Woodland</u> . The woody vegetation is a mixture of evergreen broadleaf, Coast Live Oak, and California bay with some California buckeye and Valley oak.	Creek bottoms combined with relatively high amounts of water. No thick understory.	Good natural habitat for wildlife.	
<u>Chapparal</u> . A true hard chapparal found on steeper slopes typified by chamise, toyon, buck brush, bush monkey flower, and holly leafed cherry.	Thick underbrush, difficult for human access.	Provides cover, protection and seclusion; known habitat for deer and other mammals.	
<u>Oldfields</u> converted by succession from grasslands to other types being dominated by coyote brush and poison oak.	Gentle to moderate slopes intermittently open.	Attractive to burrowing small mammals and to raptors which feed upon them; provides forage for surviving members of black tail deer herd — several individuals.	
<u>Grasslands</u> the most abundant vegetative type, comprising 1/2 of the total coverage. Consisting primarily of non-unique Mediterranean annuals.	Steep to gentle slopes relatively open.		

Source: A vegetative survey was undertaken by Mr. Roman Gankin of the San Mateo County Planning Department in June and July of 1975. A full report appears as Appendix E.

SUMMARY: Although the vegetative and animal resources of the Sugarloaf area are not uncommon or rare and en-

dangered, they are significant because of the proximity of the site to an intensely developed area and because they have remained relatively undisturbed for a number of years. The site could be considered a significant nature interpretive resource for citizens of the surrounding urban areas.



Project
Boundary

- Riparian Vegetation
- Woodland
- Shrub-Chapparral
- Oldfield Succession
- Grassland
- Existing Roads



BIOTA

**SUGARLOAF
GENERAL &
SPECIFIC
PLAN**

DEPT. OF ENVIRONMENTAL MANAGEMENT
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BIOTIC CONDITIONS

Within the Sugarloaf Planning Area, five distance habitat areas have been identified. Within the 48-acre Development Area all of the trees have been identified and numbered. No rare, or endangered plant or animal species are known to exist in the area, although some of the mature native trees are unique. In particular, a very large 102-inch diameter Bay (#270) exists on the Hogback and an unusually large 2.8 foot diameter Toyon (#559)* exists on the northerly knoll. A vegetation map was prepared as part of the Concept Plan Analysis and is reprinted here for reference resources. Although the vegetative and animal resources of the Sugarloaf site are not uncommon or rare or endangered, they are significant because of the proximity of the site to existing developed areas and because they have remained relatively undisturbed for a number of years. Many of the hills in the vicinity which are now developed were once similar to Sugarloaf as it now appears. The site could therefore, be considered a significant nature interpretative resource for the community. A vegetative survey, undertaken by Mr. Roman Gankin of the San Mateo County Department of Environmental Management during the summer of 1975 included as Appendix E. A detailed Arboricultural Study was conducted by Forest Ag Environmental Protection service in September, 1977 to evaluate existing trees which would be affected by the proposed Sugarloaf development. The entire report entitled, "Sugarloaf Arboricultural Environmental Impact Report" is available for reference at both the City of San Mateo Parks Department and the County Planning Division. Major findings in that report are referenced in this EIR.

Twelve sectors were identified for the purposes of analyzing the Hogback. The Condominium sites and Knolls sites comprise two additional zones. Ground study was correlated to the photographs, and specimens of possible diseased trees taken for laboratory confirmation. Forest Ag found the trees on the upper slopes of the Hogback and those on the Condominium and Knolls sites to be most susceptible to wind damage and drought induced rot. On the northern slope of the Hogback which was determined to be the most ecologically sensitive of the areas studied, trees appeared to be in better form in the open stands on steeper slopes. Section H near the eastern end of the Hogback was found to have a heavy concentration of heritage trees, so-called because of size, structure or age. A seep below the ridgeline is responsible for healthy wood fern in the ground level growth beneath heritage oak and buckeye in Sector H. Oakmoth defoliation was noted to some extent in most areas of the site but more concentrated on the Knolls and more westerly parts of the site.

Estimates of the value of all trees in the vicinity of proposed development was undertaken by Forest Ag using "A Guide to the Professional Evaluation of Landscape Trees, Specimen Shrubs and Evergreens," a recognized standard among arborists. The guide, published jointly by the International Society of Nurserymen, was revised recently in 1975. Each of the trees in the area of proposed development were tagged by number, located on a master map, and independently valued.

*Age at least 300 years (carbon dating could give precision; 25 feet high; 35 feet wide.)

VISUAL CONDITIONS

When proposals to develop any portion of the Sugarloaf site are announced, one of the first questions asked is, "What will it look like?" Seven representative vantage points at different distances from the site were chosen and a map prepared to indicate the relative visibility of each part of the site. Any proposal can be compared to the Viewshed Analysis map and estimates of its visual effect made. High visibility is determined by location as well as the density, bulk and height of the proposal itself. Sketches depicting the view of proposed development are included on page 38 of the Specific Plan.

From the standpoint of existing conditions, the Mountain Cone is by far the most prominent feature in strictly visual terms and probably the most memorable from a psychological standpoint. While the cone is visible from a great distance, (it lies directly in the path of sight from the San Mateo Bridge for instance) its visual open space value is most pronounced from the residential areas immediately surrounding the site. It is the dominant land form seen from the upper plateau area along which Highway 92 is built. The view from Highway 92 will establish the casual observer's image of the development.

Upon inspection of the Sugarloaf Planning area in detail, it is the Hogback which dominates the main site entry point at De Anza Boulevard, and which is most immediately visible from the existing Laurelwood Neighborhood. The most remote portion of site is the Laurel Canyon floor with its intermittent creek and riparian vegetation.

RELATED PLANS

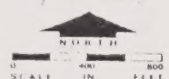
The Sugarloaf Planning area is the last major undeveloped in the vicinity. As the site is surrounded by existing hillside development on all sides, the proposed development is essentially infill. However, the size of the Planning area (267 acres) is large enough to permit a self-contained and unique development. There are no plans for additional residential development directly related to the Sugarloaf proposals however plans for improvements to the existing Laurelwood Park have been prepared but not yet adopted by the City of San Mateo. No conflict between the Laurelwood Park improvements and the Sugarloaf proposal is indicated.

HISTORICAL/CULTURAL SITES

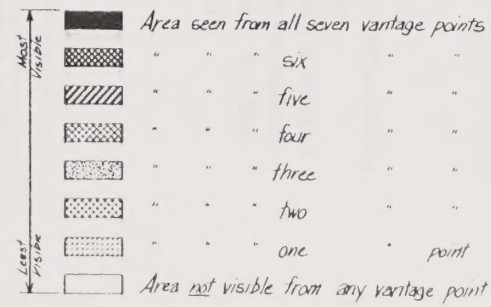
Archeological reconnaissance was performed at the time of the Concept Plan Analysis and no evidence of inhabitation of the site prehistoric native Americans was found. A small 5.3-acre cemetery at the extreme southwestern portion of the Planning area contains the graves of paupers of European origin. (Source: Review of historical records; San Mateo Historical Museum.)

LAND USE IMPACTS

The Specific Plan for the Sugarloaf Planning area, if implemented, will result in the development of land within the 267 acre Planning Area. Single family attached (townhouse) units will be clustered along the Hogback and on the Knolls while multi-family (condominium) units will be concentrated on two sites near the intersection of Parkwood Drive and De Anza Boulevard. Six, single-family detached units will be constructed on Parkwood and Cherrywood.



(F)



Explanation: Locations of vantage points are indicated by letter symbol, direction of view is indicated by angle of symbol. Two vantage points were located off the map. Vantage point A is located at the intersection of Highway 92 and El Camino Real. Vantage point B is located at East Hills Drive near H. Smith Shopping Center.



VIEW SHED

SUGARLOAF GENERAL & SPECIFIC PLAN

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The overall density in the entire Planning area is approximately 1.5 units per acre while that in the 47.6-acre Development Area is approximately 8.1 units per acre. These densities are in conformance with the adopted Concept Plan for development; further discussion of development potential from existing zoning was made irrelevant by adoption of the Concept Plan Amendment and Specific Plan. The change in land use is presented in the following table:

TABLE IX: LAND USE IMPACTS

PLAN BASE	FACTOR				
	# Bdrms.	# Pop.	# units	Dev't Area	% Open Space
Concept Plan Alt. A. Development Potential	790	990	equal value to 290 SFD	45.2 ac.	17
Specific Plan Development	790	990	384 DU's mix MF/SF	47.6 ac.	16
Existing Land Use No Development	0	0	0	0	100

Source: Concept Plan Analysis; Specific Plan

ZONING IMPACTS

Rezoning of land within the City of San Mateo and prezoning of land presently within County jurisdiction is part of this project. The new zoning designations are indicated on the proposed Zoning Map, page 53. The changes in zoning designation shown below are required by State Law for conformance between General Plan and Zoning. All land is proposed to be annexed to the City of San Mateo thus City designations are shown for the proposal.

TABLE X: ZONING IMPACTS

PLAN BASE	FACTOR	
	Areas currently within the City	Areas currently within the County
San Mateo City Zoning (existing)	R1-B (Single-Family) (agricultural)	—
San Mateo Zoning (existing)	County —	RE/S-10 (Single- Family* Large Lot)
Proposed Zoning Map Designations	R1-C (single-family) R-3 (multi-family)	R1 (single-family) 0 (open space)

Source: City of San Mateo; proposed zoning map.

* Zoning not consistent with General Plan; amendment required.

GENERAL PLAN IMPACTS

A General Plan Amendment is part of this project. The new land use designations are indicated on the Land Use Plan, page 8 of this document. Acreage devoted to each land use are presented in Table I, page 9. The change in General Plan designation is presented in the following table. All land is proposed to be annexed to San Mateo.

TABLE XI: GENERAL PLAN IMPACTS

PLAN BASE	FACTOR	
	Designations within San Mateo City Limits	Designations within County Jurisdiction
San Mateo City General Plan	Low-Medium Density Residential	Low/Medium Density Residential
San Mateo County General Plan	Open Space	Open Space
Proposed General Plan Amendment	See Land Use Plan page 8, G.P.A.	—

Source: Proposed General Plan (Land Use Plan, Page 8)

The extent of development proposed for the Sugarloaf Planning Area is considered to be significant change from the current undeveloped status of the land. The parameters of the change are detailed in other sections regarding grading, biotic systems and visual impacts.

CIRCULATION IMPACTS

Changes in overall traffic patterns due to the Sugarloaf development are estimated to be minimal. The major orientation of the Sugarloaf generated traffic (90%) is towards the De Anza interchange with Highway 92. Traffic will be attracted from the Laurelwood Neighborhood through Sugarloaf due to the extension of Glendora to De Anza, and traffic which now flows from Parkwood through the De Anza interchange to West De Anza will be facilitated. The expected flow distribution is shown in the Traffic Distribution Diagram. Diagrams are also used to show existing traffic and Project Generated traffic. The extent of traffic reorientation due to new streets is shown in the estimated traffic attractions diagram. Roadway modification and signalization at the De Anza interchange is presumed a part of the development project.

Table XII illustrates total average weekday traffic and peak hour traffic generated by the Sugarloaf project. Similarly to the Concept Plan. Sugarloaf generated traffic was distributed 90% towards De Anza Boulevard, 9% toward Glendora Drive and 1% towards Parkwood Drive. Peak Hour traffic - the heaviest commute hour use of streets - is used in all of the diagrams to indicate maximum potential impact.

The greatest traffic volumes in the vicinity of the project are along Highway 92. The greatest traffic volumes on local streets are expected to occur on the new street along the Hogback and especially at the interchange with Highway 92. Points at which traffic impacts might be expected to occur are shown in Table XIII. The table indicates that sufficient excess capacity will remain at each of these points to accommodate projects generated traffic and projected future increases of existing traffic.

Temporary traffic impacts will occur during the construction stage from material deliveries and worker's vehicles. Worker's vehicles will vary in number according to the construction schedule but are not expected to affect peak direction flows except at intersections with Highway 92 since workers will be commuting in the opposite direction to local residents. Heavy trucking impacts will be more noticeable for dirt spills in the vicinity of De Anza and Highway 92 than for vehicle trips. A total of 418 vehicle trips per day maximum are estimated during hauling periods when grading is underway for any phase. If hauling is limited to non-commute hours there should be no conflict with normal traffic. All hauling has been proposed for exit through the De Anza interchange with Highway 92. Daily cleanup of dirt spills will be required.

On site Circulation. Entrances from project streets to each of the two condominium sites are suggested but design is not finalized. Potential safety hazards are presented by suggested entrances to these sites. Parkwood Drive is steep along the easterly side of the north site and site distance is minimal. Any entrance to the southerly site from De Anza should be aligned with the suggested entrance to the northerly site so that turning movements can be coordinated and adequate stacking lanes designed.

Pedestrian and Bicycle Circulation. No impacts on pedestrian or bicycle traffic or facilities is expected from the project since adequate bike lanes, sidewalks and crossings are indicated in the proposed Circulation Plan.

TABLE XII: TRAFFIC GENERATION

Land Use Description	Total No. Dwellings	Vehicle Trip Generated Traffic	Total Avg. Weekday Traffic	Traffic Split (AWDT)			Peak Hour Traffic Factor	Total Peak Hour Traffic	Traffic Split (PHT)		
				To DeAnza 90%	To Parkwood 1%	To Glendora 9%			To DeAnza 90%	To P'kwd 1%	To Glendora 9%
Single-Family											
• Parkwood/Cherrywood	6	6.7/DU	40	36	0	4	8.45%	3	3	0	0
• N. Hogback	64	"	429	386	4	39	"	36	33	0	3
• S. Hogback	66	"	442	398	4	40	"	37	33	0	3
• Knolls	94	"	630	567	6	57	"	53	47	1	5
Subtotal	230	6.7/DU	1541	1387	14	140	8.45%	129	116	1	11
Multi-Family (Condo)											
• N. Site	64	6.4/DU	410	369	4	37	6.55%	27	24	0	3
• S. Site	90	"	576	518	6	52	"	37	34	0	3
Subtotal	154	6.4/DU	986	887	10	89	6.55%	64	58	0	6
TOTALS	384	—	1972	1774	20	178	—	193	174	2	17

NOTES: Trip Generation Factors are derived from California Dept. of Transportation, Traffic Generation Factors, Vol. 6, 7, 8.

Estimated Traffic Splits are provided by City of San Mateo Engineers.

Peak Hour Traffic Factors are derived from California Dept. of Transportation, peak hour represents maximum commute hour traffic between 5-6 p.m.

TABLE XIII: TRAFFIC IMPACTS

IMPACT LOCATION	Existing* Peak Hr. Traffic	Sugarloaf Generated Traffic	Traffic from Laurelwood	Attracted from W. DeAnza	Total Projected Traffic	Capacity of Street	Intersection** Turning Movement Capacity	Excess Capacity	Impact Summary
Highway 92 Northbound	51 from E 392 from W	96	89	—	628	—	750	+122	No impact
Highway 92 Southbound	14 from E 131 from W	26	24	—	195	—	750	+555	No impact
Parkwood Drive	94	1	- 54 to Glendora +36 from Glendora	1	78	750	—	+672	No impact
Glendora Dr. at Hillsdale	288	18	-121 to De Anza +54 from Parkwood	104	343	750	1200	+407	No impact

* Existing traffic volumes have all been increased by 25% to show estimated impact at time of project completion.
This assumes approximately 2% increase in traffic per year to 1990.

** Interchange at De Anza/Highway 92 assumed to have two-lane, signalized access at project completion.

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SERVICES AND UTILITIES IMPACTS

Water. Water needs for the development will be provided by the California Water Service Company. Construction of a new one million gallon water storage tank at the southerly end of the Sugarloaf site is a part of the project. The tank will not only supply water for the Sugarloaf development but will insure sufficient backup for fire safety and emergency purposes in the general vicinity. Based on the average consumption for the San Francisco area of 125 gallons per person per day, the expected water needs of the 990 maximum population will be approximately 125,000 gallons per day. This represents 0.5% of the peak summer delivery of the water company and is considered to constitute a negligible impact.

Sanitary Sewer. Sanitary sewers from the project will be connected to an existing trunk line located near the Glendora/Cherrywood intersection. This 15" diameter line was extended during development of the Laurelwood Neighborhood principally to serve future development in the Sugarloaf area and was sized anticipating maximum development. Project generated flows are estimated to be a maximum of 100 gallons per capita or approximately 100,000 gallons per day. The San Mateo City Treatment Plant is presently processing 10.5 million gallons per day and has a capacity of 13.5 MGD. During 1978 the plant capacity will be increased to 13.6 MGD.

A commitment has been made to provide 1.9 MGD treatment for Foster City once the improvements are completed. The projected Sugarloaf demand represents about 8% of the estimated 1.2 MGD excess capacity and about 1% of the total demand on the facility's capacity after improvement. As Sugarloaf population will represent approximately 1% of the total San Mateo County population, the demand on sewage facilities is considered to constitute a negligible impact.

Natural Gas and Electricity. Using average demand figures from meter records for the City of Palo Alto, estimates of energy demand by the Sugarloaf development were computed. Annual per unit demand for natural gas and electricity have been converted to therms, a unit of measurement equal to 100,000 BTU's. This provides a common base term for discussion of energy demand.

For comparison purposes, the estimated energy yield from the type of gasoline used in the operation of motor vehicles is about 125,000 BTU's per gallon. Thus, the demand for natural gas and electric energy per year is equivalent to the use of 1,986,532 gallons of gasoline. This quantity represents about 3-1/2 times the total estimated amount that will be used by Sugarloaf automobiles, assuming two cars per single-family unit, 1.5 cars per condominium unit and each car traveling 15,000 miles at 18 miles per gallon.

Although solar energy devices are not yet readily available for use on a broad scale in the housing market and are not considered economic for use in direct electric generation at this time, the potential for passive use in hot water and space heating can be computed.

The surface area of roofs generally oriented southwest was estimated and the energy collection potential from solar collectors of the same area computed. An average heat value of 1600 BTU's per square foot and average 180 annual sunshine days were assumed. The total estimated energy potential from solar sources is 133,000 therms per year or approximately 1/3 of the total natural gas demand.

No excessive energy demands are required by the Sugarloaf development. Project requirements can be met by existing natural gas and electric facilities and are considered to constitute a negligible impact.

TABLE XIV: ANNUAL ENERGY CONSUMPTION

ENERGY FORM	DEMAND PER UNIT (THERMS)		NUMBER UNITS		TOTAL
	Single-Family Units	Condominium Units	SF	MF	
Natural Gas	1177	969	230	154	419,936
Electricity	5770	4751	230	154	2,058,754
TOTAL					2,478,690

Telephone. New demand for telephone can be supplied by extending the existing line from Glendora Drive. Project impacts are considered negligible.

Police Protection. Based on County estimates of 1977 population, the City of San Mateo currently has 79,000 population and a ration of 1.38 officers per 1000 population. On this basis, the proposed Sugarloaf population of about 1000 persons will require one additional police officer. Surveillance of the Canyon and Cone open space areas and patrol of residential neighborhoods are the principal service needs. Total cost for the additional officer is shown below and the impact considered minor.

Cost per Officer	\$24,000
Support Personnel	\$ 7,880
Total	\$31,880

Fire Protection. The City of San Mateo presently maintains a ratio of approximately 1.2 firemen per 1000 population. This is slightly above the one fireman per 1000 recommended by the American Insurance Association. Existing personnel will be adequate for the additional Sugarloaf demand provided an existing mutual assistance agreement with the City of Belmont is maintained for the area between Hillsdale in San Mateo and Ralston Avenue in Belmont. The proximity of Firestation #7 at De Anza will guarantee particularly fast response time unless damage to the De Anza interchange from an earthquake or other catastrophe blocks passage. In such a situation, personnel from more distant stations will have to approach Sugarloaf along local streets such as Glendora Drive. Fire fighting potential for the townhouse areas will be increased if access paths at the edge of the hogback clusters are maintained; potential for the condominium areas will be increased if the units are sprinklered.

Schools. The Sugarloaf Planning Area lies predominantly within the Belmont School District and is served by the nearby College of San Mateo. The impact of project generated students on existing facilities is indicated in the following table.

TABLE XV: SCHOOL IMPACTS

SOURCE	STUDENT GENERATION AND COST DATA						
	No. DUs	Student Generation Factor	No. Students	Capacity of School	Available School Capacity	Cost per Student	Total Cost
<u>ELEMENTARY SCHOOL: CIPRIANI</u> (2.5 miles from Parkwood/De Anza)							
Single-family	230	.16	37				
Condominium	154	.09	14				
Subtotal			51	600	175-225	\$1425	\$72,675
<u>INTERMEDIATE SCHOOL: RALSTON</u> (2 miles from Parkwood/De Anza)							
Single-family	230	.16	37				
Condominium	154	.08	12				
Subtotal			49	700	75-125	\$1425	\$69,825
<u>HIGH SCHOOL: CARLMONT</u> (3.5 miles from Parkwood/De Anza)							
Single-family	230	.16	37				
Condominium	154	.04	6				
Subtotal			43	2224	50-100	\$2100	\$90,300

Source: Belmont School District: San Mateo School District

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An available school capacity range is given in order to reflect variations in school enrollment which have been observed in past years. School enrollments have generally been declining since the middle 1960s when enrollment was highest. The San Mateo High School District Enrollment Projections show a steady decline of enrollment in all grade levels projected through 1982. On this basis the maximum availability of school capacity is anticipated and schools impact is considered minimal. The addition of 20 or fewer students to the College of San Mateo enrollment will have a negligible effect on the College.

Hospitals. Adequate hospital and ambulance facilities exist to serve the proposed development. No unusual population characteristics that might cause unusual demand on these facilities or adversely affect response time to other parts of the community is anticipated from the proposed development.

Parks and Recreation. Recreation facilities within the development area to serve future residents of the Sugarloaf area are part of the Specific Plan. Tennis courts are proposed on the southerly Condominium Site and private recreational facilities consisting of swimming pools, meeting rooms and a possible golf putting green are proposed for the future condominium complexes. As new residents will create a new demand for recreational facilities the deletion of such facilities within the development area would create additional demand on existing public facilities and constitute a community impact.

Demand on existing public facilities is expected to be greatest at locations closest to the Sugarloaf site. Thus, Laurelwood Park is expected to experience greater use as are school playgrounds.

Solid Waste. An estimated 37 tons or approximately 123 cubic yards of solid waste will be generated per month by the projected residents of the Sugarloaf site. This represents approximately .07% of the total volume taken from all of San Mateo each month to the Marsh Road Disposal site in Menlo Park, and will only slightly reduce the 3-5 year remaining life expectancy of the facility. When Marsh Road can no longer be used, solid waste will be taken to the new Ox Mountain facility near Half Moon Bay in accordance with the County Solid Waste Disposal Plan.

GEOLOGIC IMPACTS

The location of the Sugarloaf site at a distance of about one mile from the San Andreas Fault Zone means that the development will be subjected to intense ground shaking in the event of an earthquake. The estimated intensity is 8-9 on the 10 unit Mercalli Intensity scale. Based on the Geotechnical Investigation by R. C. Harlan and Associates the easterly portion of the site (Hogback) consists of well-bedded sandstone material while the Knolls are predominantly sheared 'melange' materials. In general, the Hogback units will be located over more compacted material and may experience lower intensities than units located on the Knolls. This will be particularly true in the winter months when water-saturation of the melange will tend to increase the effects of shaking. These differences can be minimized by proper drainage of fill areas, by controlling surface water through grading so ponding does not occur, and providing drainage facilities for seeps encountered in cut slopes.

Settlement in filled areas, which has effected some residences in areas surrounding the Sugarloaf Planning Area, should not generally be encountered in the proposed development because fill will be minimal and placed on ridgetops rather than over loosely compacted canyon soils containing ground water. The Geotechnical Investigation recommends that within the development area, foundations should be placed over excavation of the cut portions and replacement with uniform fill. Site material is adequate to support spread footing type building foundations without the need for piers in most places, and will adequately support the proposed water tank. Deeper foundations or piers are recommended for construction within 10' of the tops of slopes both at the edge of the Development Area and at the edges of pads within the Development Area.

Slope stability outside of the development area should not be adversely affected by the proposed development according to Harlan provided grading spoils are not allowed in non-development areas and accumulated runoff is directed to natural drainage courses. Within the development area, slope stability can be insured by properly draining and benching fill slopes and cut banks.

Two areas of possible geologic impact are singled out in the Harlan report: 1) area of existing fill between the Knolls; 2) slump area on the southerly knoll. Impacts cannot be assessed at this time in these areas but only as grading is underway. Mitigation procedures if needed are outlines in the Geotechnical report.

SOIL IMPACTS

Very little of the original soil layer will remain in the Development Area due to the proposed grading which is predominantly a cut and removal scheme. Surface soils of the slopes surrounding the proposed development area are however, very susceptible to erosion as is evidenced by the sloughing and numerous small erosion gullies which have formed as a result of surface soil disruption and runoff. Erosion can be seen undermining the edges of concrete lined drainage swales which were constructed between the Knolls when Highway 92 went in. Although storm drain outfall lines are proposed to be above grade and emptying into energy dissipators, some erosion of disturbed slopes and scouring of existing drainage channels must be expected if there is a heavy rainfall in the future. Within the development area, the finished topsoils, which will be a mixture of site and imported material, will be stabilized by planting and silt carried to the storm drain system is expected to be minimal. Silts carried by the natural drainage channels are expected to be deposited where channels from the Knolls meet the main canyon channel and in the vicinity of Laurel Creek dam. At these locations any significant amount of sediments may smother local vegetation. No proposal to stockpile surface soils for reuse is outlined.

Unless treatment by a combination of proper runoff control and revegetation, erosion will continue where it now exists and will begin where soil cover is disturbed or new runoff introduced. A good example of ongoing erosion can be seen on the Mountain cone where unauthorized vehicles have created tracks. The impacts associated with erosion are degraded visual appearance and siltation to the drainage system. With the proposed plan, both visual and siltation effects are addressed and the long term stabilization of the soils achieved so that impacts are brought under control.

Trees that will remain at the edge of the Development Area after grading may be impacted if surface soils are piled up around the bases of trees or if surface soils become unusually compacted from machinery. Soils above the normal crown (trunk base) of a tree can induce rot; compaction of soil restricts water percolation and oxygen to roots. The extent of this type of impact, while considered significant, will be limited in extent and will depend upon supervision during construction to keep grading activity within the Development Area.

Soil impacts are considered potential significant in the short term due to grading within the Development Area and due to disturbance of ground cover adjacent to the Development Area. This can be minimized by the use of fast growing grass and shrub varieties in the seeding mixture placed on disturbed areas and by installation of drainage facilities as soon as possible after grading. Soils impacts are considered to be potentially minimal in the longer term as open space areas are stabilized, existing erosion tracks in places like the Cone restored, and as revegetation of cleared areas within the Development Area is completed.

TOPOGRAPHIC IMPACTS

Grading within the Sugarloaf Development Area is proposed to be done in phases so that a minimum of bare earth is exposed before construction of residential units begins. These phases are illustrated in the Grading Schedule map on page 32 of the Specific Plan. With prevailing west and northwest winds, the Knolls and Hogback areas are expected to be subjected to dust blown from grading in the Condominium sites. The easterly end of the Hogback is where the first townhouse units are planned to be built. If these units are occupied before the grading is completed on the Condominium sites, residents will experience the annoyance of dust settling on plants and on surfaces inside units. These are considered to be minimal short range impacts.

Existing topography in the Sugarloaf Development Area will be changed. The high elevation of about 500 feet near the freeway and the low elevation of about 210 feet near the eastern end of the Hogback will be relatively unchanged. The major difference will be in the reduction in height of the ridgelines on the Knolls and Hogback. The overall grading concept is to cut off the rounded tops of the Knolls and Hogback ridges to create a series of slightly sloping pads for buildings and moderately sloping grades for streets. At some places along the center of the Hogback, this will mean a cut of 40 - 50 feet. In all instances the grading follows the existing change in elevation from west to east. By this grading approach, runoff can be channeled towards streets and into controlled outfall lines to energy dissipators near natural drainage courses in the Laurel Canyon drainage system. Details of grading are discussed in the Specific Plan. The nearly 1.4 million cubic yards of earth to be exported from the site will be taken via Highway 92 to other parts of the peninsula. Probable destinations for exported fill are Redwood Shores (R.C.) and Mariner's Island (S.M.).

Graded areas and new buildings will be visible from existing vantage points in the City of Belmont. From the Laurelwood area, visibility of buildings will actually be minimized by the proposed grading. If buildings were constructed on the Hogback without grading as proposed, rooflines would form the new ridge profile; by cutting away the top of the ridgeline, buildings will be placed lower and the natural ridge profile formed by trees on the northern slopes of the Hogback will be retained. Topographic changes in this area are considered to constitute a positive impact.

HYDROLOGIC IMPACTS

Urban development is not dependent upon ground water resources from the Sugarloaf area and evidence from USGS survey work indicates no potential for significant development of ground water resources. No recreational lakes are dependent upon runoff from Sugarloaf although Laurelwood Park is enhanced by the intermittent flow of Laurel Creek along its southern boundary.

Development will involve grading which is expected to expose seeps in cut banks and may affect existing seeps that are below the Development Area on the Hogback. No new seeps are expected to be created outside of the Development area by development, however, there is the possibility that development will interrupt existing seeps outside of the Development Area causing a transition in local vegetation towards more drought tolerant varieties. Conversely, there is a potential for irrigation within the Development Area to increase groundwater levels. The extent of these impacts cannot be assessed.

Run off from the Development Area into the natural drainage channels is expected to contain fertilizers used around the dwellings, seeds from introduced plant types, and residue from automobiles such as petroleum materials and rubber tire particles from streets.

All of these pollutants can change the soil pH or soil permeability and thus affect plant life. The heaviest concentrations of pollutants from runoff are expected to settle off-site near the Laurel Creek Dam and are expected at the beginnings of storms when impermeable surfaces are first washed after a dry period. The presence of clay in the soils at Sugarloaf will have a beneficial effect on the potential impact because clay particles in the runoff have a strong capacity for physically absorbing and chemically binding most of the heavy metals and many pesticides. Water quality impacts are expected to be minimal.

The total volume of runoff reaching vegetation near the upper slopes after development is expected to be less than at present due to runoff collection in streets. The total volume of runoff reaching the canyon bottom is estimated to be double that which now exists due to the addition of impermeable surfaces within the Development area and the collection of water in streets which will be carried through the storm system to the creek channels. Approximately 2-1/2 times as much water will run off from the Development Area after development than at the present time. This will add approximately 43% to the total volume of runoff under maximum storm conditions (100 year storm) reaching the Laurelwood Dam.

Although less water will be absorbed into the ground in the Development Area due to drainage, the ground water level is expected to be supplied by irrigation. This will tend to result in a more constant amount of moisture in the soil over different seasons as compared to natural wet and dry season.

Laurelwood Dam, when built, was sized to accommodate anticipated runoff from upstream development. The main objective for the dam is to hold storm flows so that release of water to flatter downstream locations be controlled to minimize flood potential. The Sugarloaf development will reduce storage time behind the dam by about 1/3 and this is considered to constitute a moderate impact. The amount of runoff will not necessitate construction of a larger dam nor will it contribute greater quantities of water than can be

accommodated in the spillway or in the Laurelwood Drive channel. The Sugarloaf development will have no effect on the East Laurel Creek drainage system thus no improvements to that system are necessitated by this development. The City of San Mateo Laurel Creek Drainage Basin Study, conducted in 1968 suggested that improvements could be made in both the Laurel Creek and East Laurel Creek systems to provide a greater factor of safety during a maximum 100 year storm.

CLIMATOLOGICAL IMPACTS

The most significant climatological impacts will be increased temperatures and wind exposure to remaining trees on the Hogback and Knolls abutting the Development Area. No appreciable change in wind patterns, temperature or rainfall will extend beyond an impact zone of 50-75 feet wide at the edge of development.

Temperature increases are expected to occur in the areas adjacent to development as existing trees are removed and more light allowed to penetrate wooded areas. The impacts will be sunburn damage to the trunks of thin barked trees such as the bay and buckeye, and a greater tendency towards drought related rot due to greater moisture evaporation from the soil. These effects will be most pronounced among those remaining trees on the northern slope of the Hogback and nearest the center and west end of the Hogback where more bay and buckeye exist.

Wind impacts on remaining trees will constitute the most significant climatological impacts. The Forest Ag investigation concludes that as existing trees at the edge of the ridges are removed during grading, other trees which have been shielded from the wind will be exposed. Not having grown with the effects of wind these other trees will suffer limb breakage and defoliation. These effects are expected to be felt throughout the periphery of development but will be most pronounced among those remaining trees on the northern slope of the Hogback and nearest the eastern end where the width of the tree bank is narrow. The greatest concentration of potential damage to trees is expected to be at the ends of the small cul-de-sac streets along the Hogback where townhouse units may create channels for wind.

The value of trees outside the development Area which are expected to be affected by climatological impacts has been computed using the values estimated by Forest Ag and are shown below. One extremely large bay tree cluster (102 inch diameter trunk) comprises nearly 15% of the total value of the trees potentially affected by the Hogback development. Special care should be taken to protect this tree which is tagged number 270.

TABLE XVI: CLIMATOLOGICAL IMPACT/TOTAL VALUE OF TREES IN IMPACT ZONE OUTSIDE OF DEVELOPMENT AREA

LOCATION	ESTIMATED VALUE
Hogback	\$169,160
Knolls	11,504
TOTAL	\$180,664

AIR QUALITY IMPACTS

Exhaust from automobiles constitutes the most important source of pollutants affecting air quality. Estimates of the magnitude of these impacts were computed using the Bay Area Pollution control District (BAAPCD) "Guidelines for Air Quality Impact Analysis of Projects" for both area and regional impacts. Emission factors for 1978 were used in the calculations to demonstrate maximum impact since factors for later years will be lower due to improved emission controls. Three pollutants most closely related to the automobiles were analyzed: carbon monoxide (co); non-methane hydrocarbon (NMHC); and total suspended particulates (tsp).

Project impacts are calculated within a one kilometer square area containing the Sugarloaf Development Area. Regional impacts portray concentrations resulting from project emissions after they have become thoroughly mixed vertically and horizontally and have traveled a considerable distance from the site. The constant wind at the Sugarloaf site will facilitate good air quality at the site. Cumulative impact figures represent the sum of background level pollutants and project generated pollutants within the one kilometer square study area.

Generally, carbon monoxide is considered to be the best indicator of vehicular emissions. It is the only one of the three which exceeds background levels within the localized project area; the other two pollutants are present in extremely low volumes.

As indicated by the table below, negligible quantities of pollutants will be generated by the Sugarloaf project and cumulative levels are well below air quality hazard levels. In the table, wherever there is a variation between State and Federal Air Quality Standards, the strictest one is applied.

TABLE XVII: AIR QUALITY IMPACTS
(All Quantities in Micrograms per Cubic Meter)

	CONTAMINANT	AIR QUALITY STANDARD AVERAGING TIME	AIR QUALITY STANDARD	BACKGROUND POLLUTION LEVELS	REGIONAL	PROJECT GENERATED POLLUTION LOCAL	CUMULATIVE POLLUTION LEVELS
State Standard	Carbon Monoxide	8 hour	10,000	177	.044	210	387
Federal Standard	Non-Methane Hydrocarbons	3 hour	160	54.7	.055	23.7	78.4
State Standard	Total Suspended Particulate	24 hour	100	10	.004	1.84	11.84

SOCIOECONOMIC IMPACTS

Population has remained at nearly constant level in San Mateo since 1970. Although approximately 3200 new units have been added since 1970, family size as decreased. The proposed addition of 384+ units in the Sugarloaf development represents about 10% of the total construction which has occurred over the past seven years. The average price range for these new units which is shown below, will be slightly higher than the estimated value of existing homes in the census tracts surrounding the Sugarloaf Planning Area.

UNIT TYPE	% 1-BR	% 2-BR	% 3-BR	% 4-BR	PRICE RANGE
Townhouse	0	80	20	0	\$120-150,000
Condominium	30	60	10	0	\$ 85-125,000
Single-Family	0	0	50	50	\$150,000

Due to projected price ranges for units in Sugarloaf, the project is expected to attract people with slightly higher incomes than in the neighborhoods surrounding the site. Property values in the surrounding areas will not be adversely affected. Family size is expected to be near the average for tract 6070 which contains the Sugarloaf site. Total Sugarloaf population is limited to 790 bedrooms or about 999 persons by the Concept Plan and comprises about 1% of the total San Mateo population.

The low supply of units in the San Mateo area is evidenced by the extremely low estimate of vacancy based on mid-peninsula utility meter readings. This means that the new units at Sugarloaf will be absorbed quickly and the tax benefits of the units and their residents will accrue to the community. From the standpoint of the peninsula housing market, the proposed Sugarloaf project will have a beneficial impact by providing needed units and by upgrading the stock of units in San Mateo.

IMPACTS ON BIOTIC SYSTEMS

No rare or endangered species of plant or wildlife will be affected by the Sugarloaf development, however, numerous heritage trees and several unique mature trees will be removed. Wildlife presently existing on the Hogback and Knolls will be eliminated. Some shift to the Canyon and Cone open space areas will occur, but the total wildlife population will decrease due to competition. Birds and some of the more adaptive mammals are expected to return to developed areas in the long term. Deer which exist in the overall Planning Area will be more limited in range but development will not sever the major migration path between Sugarloaf and watershed lands to the west which seems to be along the Canyon bottoms. Impacts on wildlife from the proximity of new residents and pets to open space areas will be greatest near the edges of the Development Area and cannot be fully predicted over the entire Planning Area. Wildlife impacts due to the proposed development are expected to be moderate.

By far the greatest biotic impact will be the effect of development on existing mature trees. The climatological effects and hydrological effects have been addressed in preceding sections. However, a significant number of trees will be removed.

Of particular importance is an extremely large specimen of Toyon (trunk diameter at the base is 2.8 feet) which is located near the edge of the Development Area on the northerly Knoll. It may be the largest recorded Toyon in the world. This unique tree is tagged No. 555.

A permit is required for harvest and sale of trees to be removed. The total value of trees to be removed was estimated by First Ag and is shown in the Table below.

The developer has indicated that brush will be chipped and left on site and stumps will be dumped.

The greatest impact will occur at the northerly edge of the Hogback where existing tree growth is densest. The numbers of trees to be removed is given on page 27 of the Specific Plan.

TABLE XVIII: VALUE OF TREES REMOVED BY GRADING

Location	Estimated Value
Hogback	\$233,920
Condo. Site	35,124
Knolls	<u>93,001</u>
Total	\$362,045

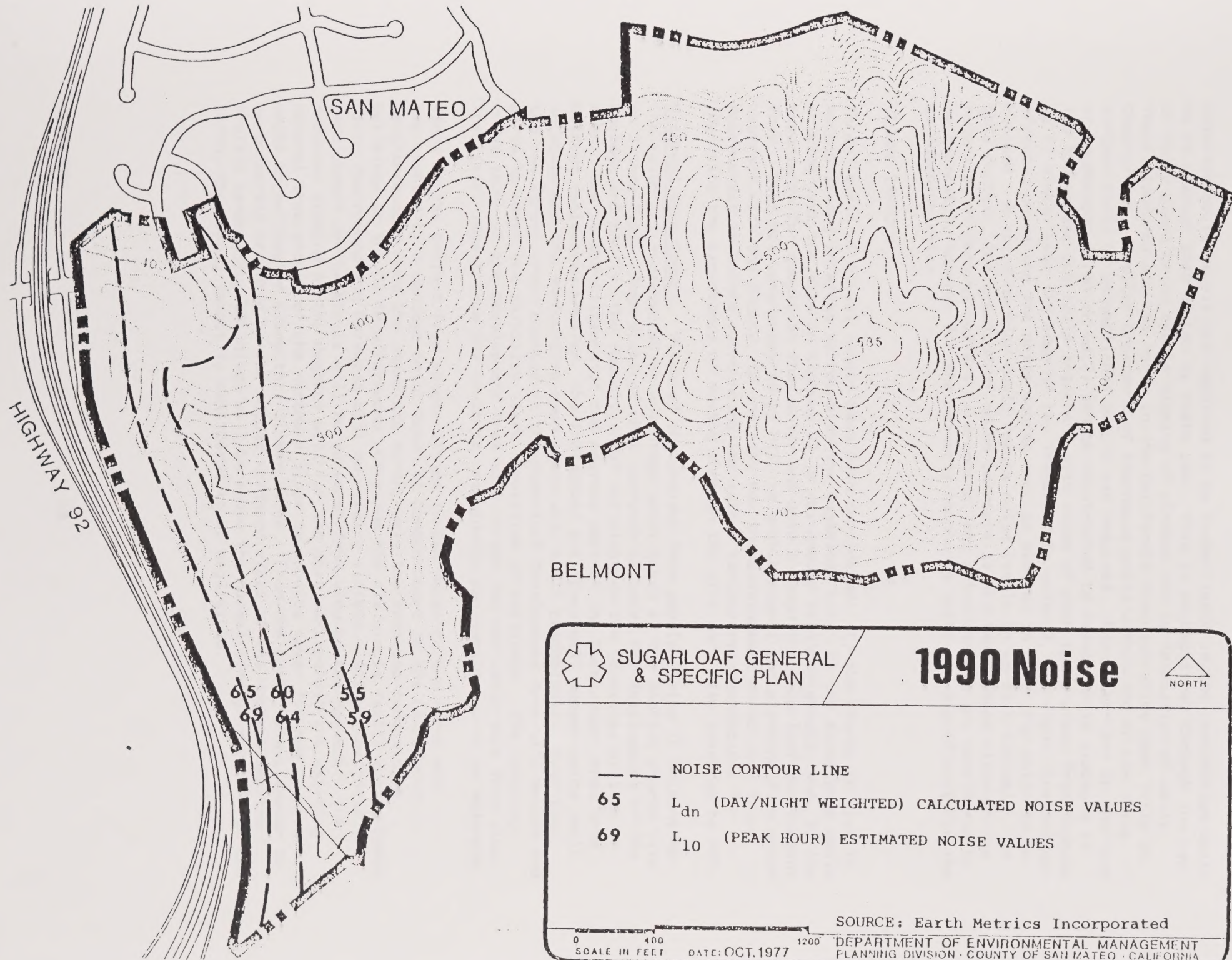
Heritage trees are determined by trunk size and structural appearance. The San Mateo City Heritage Tree Ordinance requires that all trees which are removed by development must be replaced by new landscaping and trees of comparable value. The developer's estimate of \$12,500 for street landscaping within the Development Area is much less than the estimated value of trees which will be removed thus additional landscape improvements must be designed.

NOISE IMPACTS

Noise generated by the Sugarloaf development is expected to be minimal. New residents in townhouse units along the Hogback will generate sounds which will be audible from residences along Cherrywood Drive however, no unique or unusually loud noises are anticipated. Noise from automobiles within the Sugarloaf Development Area will be minimal to these residents due to the proposed clustering of the majority of townhouse units on the northerly side of the Hogback road. The clustered units will provide noise buffering.

The greatest noise impact will be that from existing traffic on Highway 92 which will affect any future development along the westerly side of the site. Projections of noise levels to 1990 were plotted by Earth Metrics, Inc. The map shows that even with quieter vehicles in the future the Knolls and Condominium sites will be affected by noise levels at the maximum limits suggested by the U.S. Environmental Protection Agency.

The retention of portions of existing small hills which lie between the freeway and the Development Area are recommended in the Specific Plan to help minimize noise impact.



Interior noise levels are required to be controllable in the condominium units to no greater than 45 Ldn by State Law. This is accomplished through the use of heavy glass or by double glazing of windows and by insulation of walls. These standards are set forth in the California Administrative Code Title 25, Chapter One. Similar treatment of townhouse units within the 60 Ldn noise contour could be accomplished but is not required. Noise barriers in the form of landscaped berms or walls can be constructed to reduce noise exposure to the townhouses but could interfere with views of open space areas from Highway 92 if placed near the edge of the freeway. In general, the sight line between affected units and the noise source must be blocked in order for noise to be blocked. A solid barrier could reduce noise levels by up to 5 decibels. In this context, the creation of sound barriers is not recommended although the retention of natural buffers is promoted, and noise impacts are considered to be moderately adverse for the westerly townhouse units and significant for the condominium sites.

VISUAL IMPACTS

Three levels of visual impact have been considered: 1) the change in view to people living in areas surrounding the Sugarloaf site; 2) the experience while driving past the site on Highway 92 (a designated Scenic Highway); and, 3) the experience for people as they enter and move through the Sugarloaf Development Area. Sketches were prepared by HKS, an architectural and planning firm under contract with the County, to indicate how the development would look from representative points surrounding the site. Various recommendations for improving the experience of moving through the site were also prepared by HKS.

External View Impact. Views of the project from people living in Belmont to the south are represented by a vantage point taken at the Baptist church site on Bishop Road. Regardless of what approach is taken for development of the Hogback and Knolls, the imposition of buildings on the landscape will be seen. Due to the distance of the nearest part of the Development Area from Belmont residences however, the individual buildings will appear quite small in scale and the surrounding open space will still predominate. Over time, the new street trees planted in the Sugarloaf Development Area will mature and serve to cover the initially stark imposition of buildings. The existing trees south of the Development Area will screen the new water tank from view. The visual impact from the south is unavoidable and considered to be moderate.

Views of the project from people living in San Mateo to the north are represented by a vantage point taken at Condon Court in the Laurelwood Neighborhood. From the immediate north, only the proposed condominium buildings at the De Anza/Parkwood entry and the six single family custom homes along Cherrywood and Parkwood will be readily visible. All of the interior development on the Knolls will be screened from view by the Hogback. The proposed grading of the Hogback will for the most part permit the existing natural tree growth of the northern slope to provide cover for new townhouse units to be located along this linear ridge. From the north, views appear to be primarily oriented to the wooded northern slope of the Hogback and the visible condominium buildings will be above the normal line of site. From the north, the visual impact is considered to be negligible.

Two strong impressions are formed by the view from Highway 92. Views of the project from Highway 92 will create the overall impression of the development. Views of the undeveloped Mountain Cone create the valuable impression of open space amidst surrounding hill area development. From the north, the Mountain Cone, and to a lesser extent the Hogback, are visible for approximately 45 seconds to southbound motorists. From this direction, the most prominent aspect of new development will be the condominium units at De Anza; distance will tend to mask visibility of the townhouses because the units will be such small scale. The impact on views of the site from Highway 92 to the north is considered to be negligible.

The Sugarloaf Development Area is not visible from Highway 92 south of the site. However, a significant view corridor to the Mountain Cone and Canyon slopes exists between the two Knolls west of the site. Due to proximity of the highway, any townhouse units in the vicinity of this view corridor will be of sufficient bulk to interfere with the valuable interval of open space. This view from the west only lasts for approximately 10 to 12 seconds so what is glimpsed of development will be important. In the Specific Plan units are not located in the view corridor. Existing hills which bracket the corridor are retained after grading to separate development on the Knolls from freeway generated noise. The condominium buildings on the southern Condominium Site will be seen from Highway 92 northbound despite the preservation of a portion of the hill which exists at De Anza and Highway 92. Landscape and building design will be the key to the visual experience. From the south and west, the visual change is considered to be moderate but whether or not it can be considered adverse cannot be determined.

Internal View Impact. The experience of entering and traveling through the proposed Sugarloaf development was analyzed by HKS. Entry from Glendora Drive to the Hogback is considered to be uninfluenced by the development as the principal line of site will be straight into the natural slopes of the Canyon and Cone open space while the roadway will bear right. The entry experience at De Anza, where most traffic is oriented, is considered to be most critical. Landscaping is recommended in the Specific Plan to be placed on both sides of De Anza near the freeway offramp to establish the initial entryway to Sugarloaf and to soften the arrival at the condominium buildings. At Parkwood and De Anza, buildings are held back from the intersection and landscaping again softens the arrival at the townhouse development on the Hogback. An attempt is made to retain openings between buildings at points where bends in the roads provide view corridors to the Canyon and Cone open space. Moving south from De Anza along the Parkwood extension, open space is brought up to the road from the east between the Hogback and each of the Knolls. Most important is the maintenance of the view corridor to the Canyon and Cone from between the two Knolls which was discussed above relative to Highway 92. These design aspects and the proposed mix of unit design is expected to provide a positive example of neighborhood design for the City.

Night View Impact. The Sugarloaf development will introduce street and residential lighting to the site. Whereas the entire site is presently dark at night, after development, the Hogback and Knolls area will be lighted. The proposed lighting is not of a harsh or extremely bright type and is not expected to cause a negative impact on surrounding residents. Potentially bright tennis court lighting is proposed to be directed to the courts by lenses or shades.

HISTORICAL/CULTURAL IMPACTS

The Pauper's Cemetery, located at the southwestern corner of the Sugarloaf Planning Area, has been identified as the only know area of historic or cultural value on the site. No disruption of the cemetery site is proposed and no runoff or other potentially detrimental elements will be shifted in that direction as a result of development therefore no environmental impacts are anticipated.

FISCAL IMPACTS

A cost/revenue analysis of the proposed development was undertaken to compare the estimated revenue generated by the project to the average cost of services demanded by individual dwelling units in San Mateo. Results of the analysis, shown in Appendix G, indicate a positive revenue impact for the City.

ENERGY

The use of energy for residential power is discussed under Services and Utilities Impacts. The use of energy for vehicles is also discussed in that section. The Sugarloaf Specific Plan concentrates residential units in condominium complexes and in townhouses on the Hogback and Knolls thus the length of vehicular trips within the site is minimized as compared to the more spread out type of residential development in areas surrounding Sugarloaf. The potential for public bus service to Sugarloaf is anticipated in both the General Plan Amendment and Specific Plan.

UNAVOIDABLE SIGNIFICANT IMPACTS

Development of the Sugarloaf Planning Area is expected to result in several significant changes as listed below. Each of these changes is considered unavoidable.

- 1) Land Use. Land which is now undeveloped will be occupied by new buildings, streets and introduced landscaping.

Human intrusion will result in an artificial ecology on the Hogback and Knolls. Green lawns in August and rows of Bay or Oak trees along streets is not the same as the undeveloped site. The visual change will be obvious.

- 2) Grading. About 1.4 million cubic yards of earth will be moved and a majority removed from the site; cuts of up to 40-50' will occur on the Hogback and Knolls. The specific location for spoils disposal has not been determined although two possible Bay fill sites have been considered; the availability of these sites will have to be determined at the time grading is ready to begin. The impact of fill must be addressed in environmental documents.
- 3) Tree Removal. Site grading will result in the removal of 166 heritage trees and 114 other trees having an estimated value of approximately \$360,000. One unique Toyon tagged #559 is slated for removal from the northerly Knoll. This tree is over 300 years old, measures 25 feet high and 35 feet wide, and may be the oldest recorded Toyon in the world.
- 4) Climatological Changes. Tree removal and grading will result in the exposure of remaining oak, bay and buckeye trees to damaging wind and sun. The value of trees in this 50-75 foot wide impact zone abutting the Development Area is estimated to be approximately \$180,805.
- 5) Soils Impacts. Grading and earthmoving is expected to result in potentially significant short term erosion increases and potentially significant damage to trees in the impact zone immediately adjacent to the Development Area due to soil compaction and overburden. No program of stockpiling topsoil during grading has been proposed, therefore, the suitability of soil for landscape purposes is not known.
- 6) Noise Impacts. Existing and future noise levels originating at Highway 92 and affecting the condominium sits are significant.

Potential Significant Effects. Several areas of potential significant impacts will require additional information in the future before a determination can be made. these are as follows:

- a) Six single-family lots (two on Parkwood; four on Cherrywood). The extent of tree removal and grading cannot be determined without a specific design.
- b) Geologic effects noted relative to fill between Knolls and landslide on the southerly Knoll.
- c) Architectural design of Condominiums.

MITIGATION MEASURES

Each of the significant impacts which have been identified in previous sections are listed below and followed by a discussion of mitigation measures which have been incorporated into the project design to help minimize these effects.

- 1) Land Use. The General Plan Amendment and Specific Plan are intended to implement the Transfer of Development Rights concept adopted with the Concept Plan for Sugarloaf. A trade off for concentration of dwelling units on the Hogback and Knolls is the benefit of retaining the Mountain Cone and Laurel Canyon areas in open space. Attention to the site design and building design for the Development Area is expected to result in a quality project with good appearance.
- 2) Grading. Although significant amounts of earth will be removed from the site, the grading follows the normal change in elevation from west to east and does not result in the filling of canyons nor the creation of numerous unsightly cut banks. A grading schedule has been devised so that graded sites will not remain undeveloped for an extensive period of time. Construction is planned to begin shortly after grading for each of the phases. Removal of earth is designed to occur through the De Anza interchange with Highway 92 during non-commute hours so as to avoid conflicts with traffic and to avoid using local streets.
- 3) Tree Removal. San Mateo City's Heritage Tree Ordinance requires landscape improvements equal in value to the value of trees removed for development. It is expected that street trees planted with the Development Area will mature and lessen the visual impact over time. Replacement will not restore the natural aspect. The aesthetics of open space cannot be compared to the aesthetics of human intrusion. There is no way to mitigate the destruction of heritage trees. The unique Toyon tree (#559) on the northerly Knoll can be protected from overwatering and preserved by constructing a concrete perimeter wall extending to a depth of three feet below the existing grade at a distance of at least eight feet from the trunk. This should be done during grading.
- 4) Climatological Changes. The Forest Ag Agricultural Report recommends the following:
 - a) Street trees are proposed to be planted at the ends of the small cul-de-sac streets to screen remaining trees on the Hogback north slopes from new wind and light exposure.

recommends the following:
 - b) Install 2 inch diameter aluminum access tubes through the root zones of trees #277, #299, #399, #520 and #535 in the impact zone adjacent to the Hogback to facilitate measurement of soil moisture with a nuclear probe instrument.

- c) Construct the private cul-de-sac streets along the Hogback so that the northernmost 50 feet of the streets drains to the north. Channel the runoff to three feet deep gravel filled trenches so that water percolates the soil.
 - d) Spray water soluble white paint on the trunks of trees in the impact zone adjacent to the Development Area to reduce potential sunburn damage to trees.
 - e) Prune larger remaining trees in the impact zone to reduce resistance to wind and to allow space for smaller trees to grow.
- 5) Soils Impact. Supervision of all grading by a licensed soils engineer is proposed. Special attention to keeping heavy equipment away from the sensitive edge of the Development Area abutting open space, and to keeping graded material from slipping downslope over existing trees and shrubs can be employed. In addition, the erection of a temporary chain link fence to catch debris could be required. Once development is complete, the reseeding of exposed land will be extremely important. If fast growing grass and shrub mixtures are required for hydroseeding, the potential erosion effects can be minimized. The first phase open space management plan is aimed at stabilizing areas adjacent to development and can include construction of water bars as well as reseeding to control erosion. A program to stockpile existing topsoil in the Development Area during grading for reuse can be employed for landscaping. A soils conservation agency can be consulted for help in achieving proper soil fertility and drainage for landscaping.
- 6) Noise Impacts. Noise from Highway 92 is significant along the western edge of the site. Townhouse units will be subjected to noise levels near the limit considered to be compatible with residential uses in the City's Noise Element. The noise levels affecting the condominium sites are above 60 Ldn and thus double glazed windows and special wall insulation is required by State law to insure that noise levels inside of the units can be maintained at no higher than 45 Ldn. To help screen the noise from Highway 92, the Specific Plan calls for retaining portions of the small hills which exist between the highway and interior parts of the site. Townhouse units are not located between the two Knolls for visual reasons and because the natural view corridor at this location also allows highway noise to penetrate the Development Area.

Potential Significant Effects. Mitigation measures have been outlined in the Geotechnical Investigation prepared by R.C. Harlan in the event that problems with soil stability in the two noted areas are found. If buttressing of fill is required, the alternate of a retaining wall rather than fill slope would result in less potential for erosion and tree damage. Mitigation for the other potentially significant effects noted above, will have to be determined after more information is available.

PROJECT ALTERNATIVES

Introduction. Seven alternative development concepts for the Sugarloaf Planning Area were analyzed in the Concept Plan Analysis. These included various ranges of residential and executive office intensities as well as the no project or total open space alternative. From that analysis a single concept, Concept A (revised) was adopted by the City of San Mateo and the County of San Mateo for purposes of guiding the subsequent preparation of a General Plan Amendment and Specific Plan for development. The alternatives discussed below are therefore within the context of implementing Concept A.

- 1) Glendora Drive Alternatives. As the Specific Plan for development of the Hogback area was being developed it became clear that Glendora Drive could be discontinuous, that is it could be made a cul-de-sac midway up the Hogback and De Anza Drive could be extended from the west to a similar cul-de-sac. In addition it became clear that regardless of whether or not Glendora was a through street or a cul-de-sac, the roadway location along the Hogback could be towards the southerly edge or towards the northerly edge. The decision to make Glendora a through road to De Anza and to locate the roadway along the southerly edge of the Hogback was based on the following findings.
 - a) Cul-de-sac roads would increase traffic along Glendora Drive and would not relieve pressure at Glendora and Hillsdale the way a through collector road would.
 - b) Cul-de-sac roads would not take advantage of the De Anza interchange with Highway 92.
 - c) Cul-de-sac roads would not permit as good access for emergency vehicles to Sugarloaf and to the existing Laurelwood Neighborhood especially since the new fire station #7 was constructed at De Anza.
 - d) The southerly location for the road along the Hogback would result in less grading than would the northerly location.
 - e) The southerly location would involve less tree removal than would the northern location.
 - f) The southerly location would allow more distance between the road noise and the existing Laurelwood residents.
 - g) The southerly location would place fewer residents adjacent to the major open space of the Canyon where proximity of people and pets might impact wildlife.
 - h) The southerly location would allow the townhouse clusters to be placed on the north side of the Hogback where they would be less visible to surrounding areas.
- 2) Recreation Facility Location Alternatives. A number of alternative locations for the placement of recreation facilities to serve the future Sugarloaf residents were considered.

City and County planning staffs suggested a location midway along the Hogback and a location near the intersection of De Anza and Parkwood more or less central to all residents. The developer suggested contributing money for the construction of two tennis courts in the existing Laurelwood Park near Cherrywood and Glendora. In the Specific Plan, tennis courts are proposed for a location on the southerly condominium site for the following reasons.

a) Tennis courts, swimming pools, and other outdoor facilities would be exposed to wind at any location along the Hogback.

b) Tennis courts, swimming pools and other active recreation facilities were found by the San Mateo City Council to be inappropriate for location in Laurelwood Park which is considered to be a more natural type park for passive activities.

c) Tennis courts, swimming pools and other active recreation facilities were not placed near the Parkwood/De Anza intersection because of traffic, lack of parking and difficulty in supervision in this location.

d) A homeowner's association is planned for both condominium and townhouse owners with meeting rooms located within the condominium complex. Tennis courts, swimming pools and other recreation facilities such as a golf putting green, if concentrated at the condominium site would be easier to maintain and would be central to all homeowners.

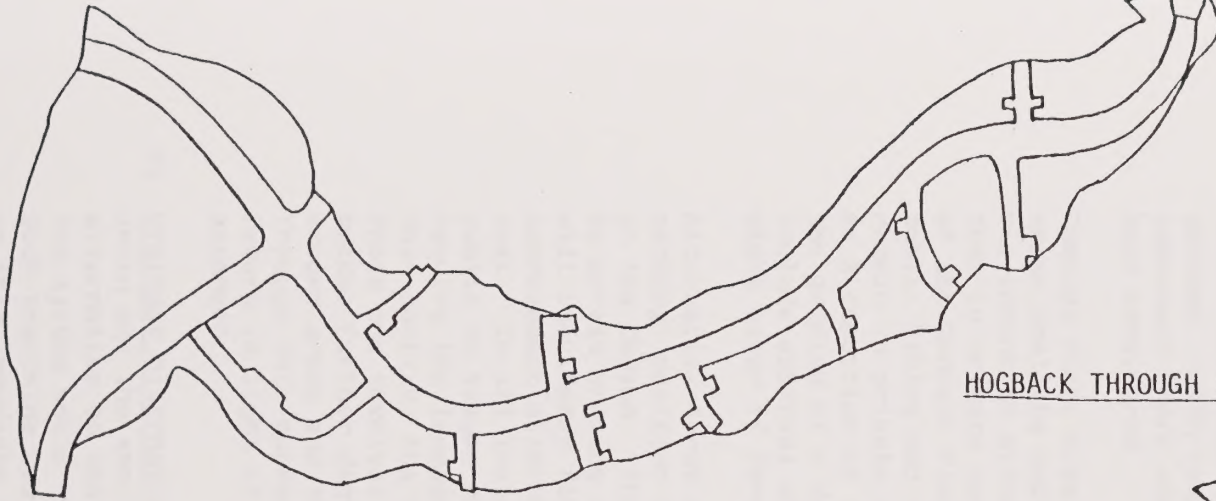
- 3) Usable Open Space Alternatives. San Mateo City regulations require dedication of four acres per 1000 people in Planned Unit Developments. Usable open space generally means level or gradually sloped open space which is accessible to residents served. The Developer initially offered the north slope of the Hogback, approximately eight acres in area for this purpose and later added an additional four acres abutting the southerly boundary of the existing Laurelwood Park. The Specific Plan designates four acres along the Canyon bottom contiguous to Laurelwood Park for the following reasons:

a) The San Mateo City Council found the north slope of the Hogback to be inappropriate for acceptance as dedicated open space.

b) The four acre area proposed by the developer includes steep slopes which are not usable.

c) The four acres along the Canyon bottom are usable and are readily accessible to hikers by an existing dirt road. In addition, this is a logical extension of the existing Laurelwood Park into the Sugarloaf site.

- 4) Grading Alternatives. The basic grading concept is to cut off the sharply rounded tops of the Hogback and Knolls ridges to create a series of slightly sloping pads for buildings and drainage and the creation of moderately sloping grades for roads. The alternative of placing buildings on the existing terrain is considered to be more damaging to the environment in that trees would still be removed, erosion potential would be increased since runoff could not be controlled to flow from buildings to the street, and the cost of foundation design to fit each different site would drive up the housing costs.



HOGBACK THROUGH STREET - NORTHERLY LOCATION



HOGBACK THROUGH STREET - SOUTHERLY LOCATION



HOGBACK CUL-DE-SAC

In addition to the basic grading concept, the differences between placement of the Hogback road to the northerly or southerly side were considered. The decision to place the road in the southerly location was based partially on the finding that the southerly location would involve less earth removal and less tree removal than would the northerly road location. Alternative locations are shown in the accompanying diagram.

5) Open Space Ownership and Management Alternatives

Probably the most important aspect of the adopted Concept A, on which the General Plan Amendment and Specific Plan are based, is the transfer of development rights from the Mountain Cone and Laurel Canyon areas to the Hogback and Knolls. This means that higher densities are permitted in the Development Area than would be permitted if the entire site were to be developed, no development at all is permitted in the Canyon or on the Cone. Development and open space should be considered together as a package. With regard to the long term management of the open space component there are both ownership and improvement alternatives which have been considered.

Concept Plan Alternative A specifies that the Canyon and Cone open space areas shall be dedicated public open space. The developer has outlined his intent to either sell the open space areas to the public or retain them in private ownership. The Specific Plan recognizes that the intent of the Concept Plan is to provide open space for visual purposes and for public hiking and nature enjoyment. Therefore, if the property is to remain in private ownership, a public access easement should be dedicated as a condition of project approval. Private ownership might also involve the grading of a Williamson Act contract by the public but would not include approval of development or change to the open space area such as might occur if forest or food crops were planted.

Alternative forms of open space management include the range from a 'do nothing' position to that of major park type installations on the Cone and in the Canyon. The do-nothing stance was rejected because it does nothing to arrest ongoing erosion, potential flooding and removal of refuse which will inevitably find its way into the open space area. The major park improvement alternative was rejected as an initial action because of cost. In all instances, the Recommended Specific Plan would require the public to assume the cost of dedicated open space maintenance and would require the landowner to assume the cost of privately held open space. In this context, the Specific Plan provides a two phased open space plan. Phase one involves the stabilization of open space so that it does not become further degraded. Phase two involves restoration of existing eroded areas and the installation of minimal park type improvements. Through this approach, the phase two action could be reevaluated in the future in light of available funds and the extent of improvements could be expanded.

- 6) Drainage Alternatives. Alternatives were considered for both the storm drain and the sanitary sewer drainage facilities. A gravity flow alternative to the recommended sanitary sewer system was rejected because the system would require trenching around the periphery of the Knolls. Such trenching would probably lead to increased damage to remaining trees in this immediate impact zone and would probably result in greater solid

erosion since it would be difficult to compact the surface soils at the edges of down slopes. Undergrounding of storm drain outfall lines down the side slopes to energy dissipators in the Canyon was rejected for much the same reason. The recommended procedure for placement of storm drain outfall lines is above grade on the down slopes so that potential tree damage and soil erosion is minimized.

- 7) The No-Project Alternative. The no project alternative would essentially preserve the site in its present condition although no stabilization of previously eroded soils or climatological damage to vegetation would occur. The value of the Sugarloaf Planning Area as a visual open space resource would be intact and no reduction of wildlife habitat would occur. The holding costs, presently the responsibility of the landowner, would continue as there is presently no proposal for public acquisition of any of the privately owned property of the Cargus Corporation. The no-project alternative would result in no implementation of the adopted Concept Plan.

SHORT VS. LONG TERM EFFECTS

Long term productivity of the environment is expected to be enhanced by the Sugarloaf development. Open Space which is presently untended, will be managed and existing environmental damage repaired if the Specific Plan is implemented. New residential units which are needed in the Mid-Peninsula will be supplied in a unified area and are expected to add tax value to the City of San Mateo if the plan is implemented. The plan does not involve the loss of high value productive agricultural land and no areas depend on water developed from the site.

IRREVERSIBLE CHANGES

Development of the Sugarloaf Planning Area is expected to result in the following significant irreversible changes:

- 1) Grading. Approximately 1.4 million cubic yards of earth will be exported from the Sugarloaf Development Area.
- 2) Land Use. New buildings, streets and landscaping will be constructed in the Development Area in a part of the City which is predominantly residential; replacement, removal or conversion to a different land use type is not likely.
- 3) Tree Removal. Existing trees will be removed from the Development Area and new landscaping introduced after grading; no plan for transplanting existing trees exists, nor would it be feasible.

GROWTH INDUCING EFFECTS

Development in the Sugarloaf Planning Area is expected to be complete once the current development is in place. The site is surrounded by residential development of a similar type, and the Sugarloaf proposal is considered to be infill to existing development even though annexation is involved. No circulation or other utility development improvements are proposed which lead to other land thus the project is not considered to have any growth inducing effects.

QUALIFICATIONS STATEMENT

Persons Preparing This Report

Malcolm C. Carpenter, Planning Consultant

Bachelor of Architecture; Master of City Planning; Member, American Institute of Planners; and American Society of Planning Officials.

Donald L. Craig, Project Planner, San Mateo county Planning Division, Department of Environmental Management

Bachelor of Arts, Master of Urban Planning; Member of American Institute of Planners; American Society of Planning Officials; and Charter Member, Association of Environmental Professionals.

Persons Giving Major Consultation

Roman Gankin, Senior Environmental Planner, San Mateo County Planning Division, Department of Environmental Management

Bachelor of Sciences, Botany; Graduate Work in Botany and Plant Ecology; Charter Member of Association of Environmental Professionals.

Ted Kreines, Planning Consultant on the Sugarloaf Concept Plan Analysis

Bachelor of City Planning; Master of City and Regional Planning; Master of Communications; Member of American Institute of Planners.

Richard Coleman, Director of Community Development, City of San Mateo

Bachelor of Fine Arts in Architecture; Diploma in Town Planning and Civic Architecture, University of London; Member of American Institute of Planners; and Member of American Institute of Planners, and American Society of Planning Officials.

Peter Katzlberger, City Planner, City of San Mateo

Bachelor of Architecture; Master of City Planning; Member of American Institute of Planners.

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Forest Ag. Environmental Protection Service, Lafayette, California November,
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Committee, Redwood City, California May 14, 1973.

Other References — Persons and Agencies

California Water Service, Barney Toomey
Belmont School District, Dr. Weston
San Mateo County Local Agency Formation Commission B. Sherman Coffman,
Executive Director; Michael Johnson, Analyst.
San Mateo County Scavenger Company
San Mateo County Assessor, Robert Lynds, Senior Real Estate Appraiser
San Mateo County Parks and Recreation Division Harry Dean, Landscape Architect
San Mateo County Department of Public Works, Odo Camerotto, Senior Civil
Engineer; Roger Young, Traffic Engineer
San Mateo County District Attorney's Office, Michael McCracken, Deputy
District Attorney
City of San Mateo Public Works Department, Bob Bezzant
City of San Mateo Parks and Recreation Department, Ed Peterson
Pacific Gas and Electric, Belmont Office Brian Haney, Mitch Gritella
San Mateo School District
City of San Mateo Fire Department Asst. Chief Lochner, Mr. Slattery
California Department of Forestry, Belmont
Neal Martin, City Planner, City of Belmont
City of San Mateo Sewage Treatment, Al Esch
City of San Mateo Police Department, James Steinrock
Energy Research and Development Administration San Francisco
Alten Associates (Solar Energy), Palo alto
San Mateo County Transit District (SAMTRANS), Larry Steuch
Bay Area Air Pollution Control District San Francisco

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APPENDICES

APPENDICES

APPENDIX A: APPROVAL SCHEDULE

CONCEPT PLAN									
12/12	o	Circulate draft EIR	X						
11/29	o	Hold Informational Meeting	X	X	X ₁	X ₁			X X
1/5	o	Public Hearing I	X	X	X ₁	X ₁			X X
1/19	o	Public Hearing II	X	X	X ₂	X ₂			X X
2/7	o	Public Hearing III	X	X			X ₁	X ₁	X X
2/23	o	Public Hearing IV	X	X			X ₃	X ₄	X X
3/78	o	LAFCo Annexation Hearing	X	X					X X
5/78	o	City Approvals		X		X			X X
		Begin Phase I Development		X					X

¹Consider Comprehensive Package: EIR, G.O. Specific Plan; P.U.D. Rezoning; Site Plan; Grading; Prezoning.

²Adopt Resolution(s) recommending approval to Board and to City Council.

³ Adopt G.P. Amendment and Specific Plan by Resolution.

⁴Adopt G.P. Amendment and Specific Plan by Resolution; Prezoning and P.U.D. Rezoning by Ordinance.

ADOPTION DATES

Concept Plan Alternate A (revised) was adopted by the San Mateo City Council on May 18, 1986, and by the County Board of Supervisors on December 6, 1976.

The rationale for Concept Plan Alternative A is to preserve as much land as possible in its original natural state while providing an equitable return to the landowner equal to that which he could obtain under existing zoning at the time of application to the City for plan approval. Presently unsubdivided and undeveloped land in the Sugarloaf area is to be planned as a single unit. Concentrated development in some sectors of the overall planning area is mandatory in response to steep terrain and the desirability of preserving important vegetation and topography.

Alternate A as adopted by the San Mateo City Council and County Board of Supervisors evolved from staff analysis of environmental and land use information. Twelve major land use principles were adopted to express the intended limits for future planning to follow the concept. These principles are listed below. The map on the opposite page illustrates the adopted land use configuration.

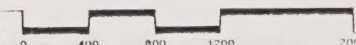
1. NO DEVELOPMENT IS TO BE ALLOWED ON THE MOUNTAIN CONE OR IN THE LAUREL OR EAST LAUREL CANYONS.
2. TOTAL ALLOWABLE DEVELOPMENT BY DENSITY TRANSFER IS TO BE LIMITED TO 990 PERSONS IN A TOTAL OF 790 BEDROOMS: THIS TRANSLATES TO 290 SINGLE FAMILY DETACHED HOMES OR THE EQUIVALENT, IN CASH VALUE, OF EXECUTIVE OFFICES, TOWNHOUSES OR A COMBINATION.
3. DEVELOPMENT IS TO BE ALLOWED ONLY ON THE HOGBACK AND THE FREEWAY KNOLLS.
4. RESIDENTIAL UNITS ARE LIMITED TO LOW PROFILE WITH A MAXIMUM OF 2-1/2 STORIES.
5. EXECUTIVE OFFICE BUILDINGS, IF PROPOSED, ARE TO BE LIMITED IN HEIGHT TO A MAXIMUM OF FOUR STORIES.
6. NO COMMERCIAL ZONING IS TO BE APPROVED.
7. A BUFFER MUST BE PLACED BETWEEN THE R-1 RESIDENTIAL USES IN LAURELWOOD AND ANY EXECUTIVE OFFICE USES IN SUGARLOAF.
8. THE REQUIRED WATER TANK IS TO BE LOCATED IN THE SOUTHERLY PART OF THE SITE ADJACENT TO HIGHWAY 92.
9. THE DEVELOPER IS TO PAY A PRO-RATA SHARE OF ANY NECESSARY FLOOD CONTROL IMPROVEMENTS IN THE EAST LAUREL CREEK WATERSHED (3 PROPOSED DAM SITES ARE INDICATED) AND CONSTRUCTION MUST NOT CAUSE THE REMOVAL OF ANY EXISTING HOMES IN SAN MATEO OR IN BELMONT.
10. THE EXTENSIONS OF DE ANZA BOULEVARD AND PARKWOOD DRIVE TO SERVE SUGARLOAF ARE TO BE CUL DE SAC STREETS WITH EMERGENCY ACCESS CONNECTIONS TO ADJACENT NEIGHBORHOODS IF NECESSARY; TWO WAY ACCESS IS TO BE MAINTAINED AT BOTH DE ANZA AND PARKWOOD.
11. THE ENTIRE SITE MAY BE ANNEXED TO THE CITY OF SAN MATEO.
12. THE CITY OF SAN MATEO IS PREPARED TO ACCEPT A DEDICATION OF ALL OPEN SPACE IN PERPETUITY IF OFFERED BY THE LANDOWNER.



SUGARLOAF GENERAL & SPECIFIC PLAN



CONCEPT PLAN ALTERNATE A



-  MULTI-FAMILY RESIDENTIAL
-  EXECUTIVE OFFICE
-  DEDICATED OPEN SPACE
-  OPEN SPACE-GENERAL
-  EXISTING ROAD
-  PROPOSED ROAD
-  EMERGENCY ACCESS
-  TRAIL
-  WATER TANK
-  PROPOSED DAM SITES

SOURCE S.M. Co.
DATE October 1977

DEPT. OF ENVIRONMENTAL MANAGEMENT
PLANNING DIVISION
SAN MATEO COUNTY - CALIFORNIA



APPENDIX D: GLOSSARY

Sugarloaf Planning Area	Means the area of land for which the General Plan Amendment is proposed. The planning area includes the five-acre Pauper's Cemetery and 262-acre Cargus Corp. lands.
Development Area	Means the area of all land graded for development or dedicated for usable open space related to PUD population. The Sugarloaf development area comprises 47.60 acres.
Neighborhood Association	An aggregate organization of all property owners in the Development Area.
Developer	Means the applicant for the proposed General Plan Amendment.
Responsible Jurisdiction	Means County or City.
Specific Plans	Means the more definitive plans and/or specific zoning prepared under the criteria set forth in the General Plan Amendment.
CNEL	Means the Community Noise Equivalent Level; a standard noise measurement technique based on the decibel scale.
Usable Open Space	Means relatively flat open space required by San Mateo City standards to be dedicated on the basis of four acre/1000 population for Planned Unit Developments.

Planned Unit Development

Means the approach to development whereby an entire area is master planned prior to subdivision and where some relaxation of standard zoning provisions such as setbacks may be permitted.

Residential Density

Means the number of dwellings per acre of land in the development. Gross density includes roads and public open space; net density is based on residential acreage only.

Homeowners' Association

Means an independent group of people who live in the homes of a neighborhood, or condominium, and have agreed to act as a group to maintain common facilities or open space to be used by all members.

Prezoning

Means an action by a City to apply zoning designations to lands it plans to annex at a future date. This insures that the City has stated its intent for the land prior to annexation.

LAFCo

Means the Local Agency Formation Commission which has the responsibility of approving annexations of lands to cities, counties and special districts, and the formation or dissolution of these jurisdictions.

Rainy Season

Means in the San Mateo area the months from October to May.

Condominium

Means a form of ownership of land and houses, where an individual exclusively owns the interior and sometimes the immediate exterior of a dwelling unit, and owns an individual share of common open space areas and common facilities such as a pool or clubhouse.

Townhouse

Means a type of building consisting of three or more dwelling units, each usually two to three stories, with individual entrances onto the street, commonly sharing one wall between each unit.

Heritage Tree

Means, according to the City of San Mateo Heritage Tree Ordinance, a tree of 50 inch circumference at 24 inches above the ground.

Site Development Code

Means the City of San Mateo Ordinance Code which regulates grading and site preparation; all definitions contained in the Code cited by reference her.

The vegetation of the study area is, in part, a remnant of a once continuous vegetation which covered the eastern slopes of the Santa Cruz Mountains. Many of the hills now covered with urban development in the vicinity were much the same as what exists today on Sugarloaf. Previous to development activity many of the hills with lesser slopes supported livestock. Brushland and some forest were deliberately cleared, often by use of fire, to provide more pasture. The grasslands of today are the result of much of this activity which also brought about the changes in species composition of these grasslands. In some areas, because of the abandonment of grazing activity, grasslands are in a process of returning to their native state, and this is especially true as Coastal scrub type vegetation is replacing the grassland. Such transitional areas can be referred to as 'old fields' in that they show resemblance to the old field succession (much more often seen) in the eastern United States. On the steeper slopes, conversion to pasture never took place, and it is here that typical chaparral is found. In the canyons and ravines the mixed hardwood woodland is found. Again, this is another remnant of the woodlands prevalent in the mountains to the west and those seen occasionally to the north and south of the site where urbanization has taken place.

Vegetation is the derivative of a complex interdependent system of factors such as water, soil, seed availability, wind, fire, slope, and temperature, to name a few.

Demarcation between one plant community and another can be sharp or it can be gradual, and is further confused by the occurrence of the

same plant species in more than one vegetation type.

In preparing the vegetation text and map for this report, field investigations combined with the natural color aerial photography were used as the primary methods of delineation. The vegetation map shows vegetation types, these are discussed below. The two brief field investigations were insufficient to develop a complete inventory of the flora. A complete inventory can be expected to take a large number of man-days spread out from March through July. Suffice it to say, there was no indication that any rare, endangered, or unique plants were found on the site, and because of the general nature of the vegetation, none are expected. A previous report of the occurrence of Garry oak was not substantiated by field investigation. The identification of oaks on the site showed instead the presence of Valley Oak. Professor John H. Thomas of Stanford University (personal communication), indicated that there is no location in San Mateo County for Garry Oak to his knowledge. Some controversy regarding this point has arisen, but is not

Five vegetation types have been identified for this study area. These have been delineated on the vegetation map. Because of the history of grazing and fire, the woodland type was the most difficult to map accurately for tabulation purposes. The discontinuous nature of the woodland vegetation probably has been the result of such activities as grazing and occasional fire. Grazing pressure and completion has slowed the revegetation to

woodland, and only in the last 20 years has such revegetation become more apparent.

The differences in vegetation type cover between that seen in 1974 photography and 1941 photography are not dramatic, but surely show a distinct surrounding land use change allowing the woodland and scrub vegetation to expand.

Grassland

The most abundant vegetation type is grassland, making up 50% of the total cover. Consisting primarily of annual mediterranean grasses, the grassland on the study area is not at all unique. No obvious remnants of the California Coastal prairie or of native valley grasslands were noted. Typical of such grasslands, a few wildflowers were noted such as blue-eyed grass, lthural's spear, etc.; however, the time of investigation was not at all ideal in terms of obtaining such data.

Oldfields

Conversion by succession from grassland to other vegetation types was noted in the few areas. With the elimination of grazing pressure, some sites are showing the change with the introduction of coyote brush, the dominant shrub of coastal scrub vegetation. Because of the succession in such areas has not been complete nor is there any evidence of coastal sage on the site, it is not possible to identify such vegetation as coastal scrub. At this point in the successional state, it is very difficult to determine the predicted outcome of such succession; therefore, where

Coyote brush is invading the grassland is presently identified as oldfields for the sake of this study. These lands where such succession appears obvious were probably never cultivated in the strict sense of the term, and could not necessarily be identified as they might in the eastern United States. Oldfields in California are practically an unknown phenomenon because the history of agricultural conversion is towards urban development rather than the return to natural vegetation from agricultural use. The only analogous case of such change is where livestock raising is an activity which is no longer economically possible, and as a result, such land use is abandoned. This appears to be the situation in the study area and in many places in San Mateo County. The lack of slaughterhouses, dairies, feed yards, etc. has made such an agricultural industry in San Mateo County inviable.

Besides Coyote brush, the other common pioneer plant is oldfields, as defined above, is poison oak. Both of these woody perennials are relatively common on the site.

Chapparral

On the steeper slopes where grazing has not occurred, chapparral is found. The chaparral on the site is relictual and is discontinuous with other areas where it is found east of Interstate 280. It is separated by urbanization. The chaparral found on the site is that which is common to the Franciscan derived soils not to ultrabasics or serpentine, which is known nearby. The most common plants in this typical chaparral are

chamise, toyon, buck brush, bush monkey flower, and holly-leaved cherry. Because of the relative steepness of the slopes, soils are not developed to any great depth and are easily leached of nutrients. Such woody plants as coast live oak and California bay, which are found in this chaparral, do not develop into much more than large shrubs generally because of the soil infertility. Furthermore, chaparral is a fire adapted vegetation type, and most of the species found in it are capable of regenerating from root crowns; others have seeds which are stimulated to grow only after fire. Grasses and other forbs are not common in chaparral because of allelopathic agents (biocides) which are deposited from the leaves of many of the shrubs into the soil preventing many annuals from germinating. Soil disturbance or fire may cause agents to break down allowing new plants to grow.

The chaparral on the site is quite old and the fuel build-up is considerable. Fire therefore becomes a critical problem. This becomes even more of a concern with the introduction of man into the area because of the increased risk.

Woodland

The predominant woody vegetation in the study area is a mixed evergreen, broadleaved woodland. Coast live oak and the California bay make up the bulk of the woodland vegetation. Two common deciduous trees, California buckeye and Valley oak are also somewhat common. At least one "Heritage Class" buckeye was noted on the Hogback. No conifers were noted. Neither Redwood nor Douglas fir are apparently native to this area, probably due to the xeric habitat as well as it being away from the fog zone more

prevalent to the west along Skyline Boulevard. This also accounts for the lack of tanbark oak and Madrone, both common in the Redwood belt.

Riparian

Along the apparently intermittent streams occurs a narrow strip of plants characterized by willow, western ninebark, elderberry, cattails, California blackberry, thimbleberry, and others. Depending upon the water table, this vegetation type varies in width along the streams to some limited degree. Any alteration to the hydrological regime could possibly have some effect upon this specialized vegetation type.

None of the above vegetation types are unique or uncommon in San Mateo County or in California. None of the plants observed are known to be rare or unique in San Mateo County or are listed in the California Native Plant Society Inventory of Rare and Endangered Vascular Plants of California (1974). All references to plants seen on the site have been checked in both local and statewide floras (Thomas, 1961, Munz, 1968, Abrams, 1975, and Abrams and Ferris, 1968).

COMMON AND SCIENTIFIC NAMES OF PLANTS NOTED ON SITE (Field Investigation: June and July, 1975; , December, 1977)

Riparian Vegetation

1. Willow Salix sp.
2. Cattail Typha latifolia
3. Mugwort Artemisia douglasiana
4. Rush Juncus patens
5. California Blackberry Rubus ursinus

6. Thimbleberry (Raspberry) Rubus parviflorus
7. Western Ninebark Physocarpus capitalus
8. Elderberry Sambucus mexicana
9. Ithuriel Spear Brodiaea laxa

Woodland

1. Bay Umbellularia californica
2. Toyon Heteromeles arbutifolia
3. Coast Live Oak Quercus agrifolia
4. Poison Oak Rhus diversiloba
5. Honeysuckle Lonicera hispida
6. White Oak Quercus lobata
7. Buckeye Aesculus californica
8. Farewell-to-Spring Clarkia rubicunda
(in open areas)
9. Pennyroyal Monardella villosa
10. Wild Rose Rosa californica
11. Yerba Buena Satureja douglasii
12. Wood Fern Dryopteris arguta
13. Oso Berry Osmaronia cerasiformis

Chaparral

1. Chamise Adonestoma fasciculatum
2. Bush Monkey Flower Diplacus aurantiacus
3. Poison Oak Rhus diversiloba
4. Coast Live Oak Quercus agrifolia
5. Death Camas Zygadenus fremontii
6. Yarrow Archillea millefolium
7. Indian Soap Plant Chlorogalum pomoridianum
8. Common California Aster Aster chilensis
9. Creeping Snowberry Symphoricarpos mollis
10. Thistle Cirsium arvense
11. Indian Warrior Pedicularis densiflora
12. Goldback Fern Pityrogramma triangularis

13. Cudweed Gnaphalium sp.
14. Five-finder lady fern Adiantum pedatum
15. Pearly everlasting anaphalis margaritacea
16. Tassel bush Garrya elliptica
17. Gooseberry Ribes quercatorum
18. California Bedstraw Galium californicum
19. Honeysuckle Lonicera hispida
20. Toyon Heteromeles arbutifolia
21. Tarweed Madia gracilis
22. Buckbrush Ceanothus cuneatus
23. Blue Dicks Brodiaea pulchella
24. Holly-leaved Cherry Prunus ilicifolia
25. California Figwort Scrophularia californica
26. Bay umbellularia californica
27. Disturbed sites
 - a. Prickly ox Tongue Picris echioides
 - b. Purple Star Thistle Centaurea calcitrapa
 - c. Poison Oak Rhus diversiloba
 - d. Coyote brush Baccharis pilularis

Grassland

1. Blue-eled grass Sisyrinchium bellum
2. Harvest Brodiaea Brodiaea elegans
3. Oats Avena ssp
4. Plaintain Plantago erecta
5. Silvery hair grass Aira caryophyllea
6. Italian Rye Lolium multiflorum
7. California brome Bromus carinatus
8. Soft chess Brumus mollis
9. Ripgut grass Brumus rigidus

APPENDIX F
Open Space Management Costs

Research has been prepared by the County Planning Division, and the County Parks and Recreation Division, Department of Environmental Management to consider costs of the open space management proposals portrayed in the Specific Plan. The Mid-Peninsula Open Space District was also consulted.¹ The figures below indicate that the annual costs for Phase I open space stabilization would be \$17,500 for five years. The costs below are for maintaining the viable open space access easement over the 205 acres of open space on Sugarloaf which will not be developed.

Phase I. Open Space Stabilization (Capital costs amortized over 5 years)

A. One Time Capital Costs

Clean up/tree care	\$15,000
Gates and Signs	3,500
Subtotal	\$18,500
Interest @ 10% per annum	1,850
Subtotal	\$20,350
Amortized for 5 years @	9,070

B. Ongoing Costs

Surveillance (1/2 person)	\$12,500
Contingency	1,000
Subtotal	\$13,500
Total Annual Cost (A+B)	\$17,500
Cost Acre	86

Phase II. Open Space Restoration and Recreation Improvements Minimal Program (Capital Costs amortized over 20 years)

A. One-time Capital Costs

Obliteration of Erosion	\$ 5,000
Recording	30,000
Trail Improvements and signs	35,000
Portable Toilets	1,500
Subtotal	\$17,500
Interest @ 10% per annum	7,150
Subtotal	\$78,650
Amortized for 20 yrs.	3,932

B. Ongoing Costs

Ranger/Conservationist (1/2 person)	\$ 7,135
Surveillance (1/5 person)	5,000
Ranger Aides (weekend and holiday help)	4,495
Subtotal	16,580
Contingency	1,000
Subtotal	\$17,580
Total Annual Cost (A+B)	21,512
Cost/Acre	109

The costs projected above compare favorably with the open space costs incurred by other Bay Area jurisdictions which operate open space areas. For instance, the average annual maintenance costs for the Mid-Peninsula Regional Open Space District facilities is approximately \$31/acre. These park areas are different from Sugarloaf because they are not near urban areas, and are not expected to have heavy intensive use. A survey of 28 northern California parks, primarily those in the Bay Area, indicated an average per acre cost of \$139.00 for operations at both "developed" and "wild lands" parks. The Mid-Peninsula Park District staff has established that the approximate annual average maintenance costs for major Bay Area parks facility with some improvements ranges between \$60 and \$70.

In addition to the costs listed above, the developer will be responsible for the following costs resulting from the impact of development near open space areas.

1. Clean up of building materials, grading spoils, etc., on nearby open space acres' = \$1000 - \$8500 (estimated)
2. Repair and maintenance of trees and vegetation damaged during development, and immediately following construction = \$10,000 - \$25,000
3. "A Comparative Analysis of Cost and Full-time Personnel Hours of Foothill Park - Palo Alto", prepared for Nature and Science Department, City of Palo Alto, CA by William E. Jackson, Stanford Graduate School of Business, October, 1976.

Assignment of Open Space Maintenance Costs

There are six (6) major methods for assigning

the open space maintenance costs to various jurisdictions or persons. They are:

1. Joint City/County Sharing of Costs - While public access open space on Sugarloaf would serve both local and regional residents, the County presently has no policy on joint City/County open space acquisition and management. While this option would reduce costs to City of San Mateo residents, also those most likely to use Sugarloaf, a major change of policy by the County would be required.
2. Developer Assumes Costs - If a public access easement is negotiated between the city and the landowner/developer, he could be required to assume the maintenance costs. While this would save the City and County money, there is at present no regulation or policy to require private landowners to operate facilities for wide public enjoyment.
3. Homeowners Association Assumes Costs - The staff has recommended, and the developer has agreed that a homeowners association should operate and maintain common area open space, residential streets, and recreation areas. The 990 persons who will live on Sugarloaf, would be required to pay an additional \$50 - \$75 per month extra on their association dues in order to maintain the Cone and Open Space. Given the high cost of housing and maintenance, this could be an excessive amount for future Sugarloaf residents.
4. City Assumes Costs - With this option all of the costs would be assumed by the City and the area would be operated by the City Parks and Recreation Department.

5. Sharing Costs by San Mateo and Belmont - Most potential users of Sugarloaf would come from the Belmont/San Mateo area. The sharing of the costs between the two jurisdictions could reduce the maintenance cost impact on city budgets. This type of arrangement has precedence in that the two cities have a mutual aid pact for fire protection; this concept could be extended to open space maintenance.

6. County Assumes Costs - The cost of Sugarloaf Open Space maintenance would be a much smaller proportionate share of the County budget than a similar share of the City budget. However, at present the County does not have a policy to encourage the County maintenance of open space areas new urban development.

Of the six options above, staff believes numbers 2 and 5 are most viable.

APPENDIX G: FISCAL ANALYSIS

This Analysis will illustrate the increase in tax dollars generated by the Sugar-loaf development through an increase in assessed value. It will also compare the per capita revenues generated by the development to the per capita expenditures for public services.

A. DATA

1. New Assessed Value - Sugarloaf^a

Land Use	Units/Acres	Value/Unit	Total Market Value	Total Assessed Value 25% x A
<u>Residential</u>				
<u>Townhouses</u>				
2 bedrooms	179 units	\$120,000	\$21,480,000	\$ 5,370,000
3 bedrooms	45 units	150,000	6,750,000	1,687,500
<u>Condominiums</u>				
1 bedroom	47 units	85,000	3,995,000	998,750
2 bedrooms	92 units	105,000	9,660,000	2,415,000
3 bedrooms	15 units	125,000	1,875,000	468,750
<u>Single Family Detached</u>				
3 bedrooms	3 units	150,000	450,000	112,500
4 bedrooms	3 units	150,000	450,000	112,500
<u>Open Space</u>				
Public	4 acres	-0-	-0-	-0-
Private	205.35 acres	2,435	500,027	125,007
			TOTAL	\$11,290,007

- a. Market values were taken to be selling prices estimated by the developer as of October, 1977, condo prices are projected for 3-4 years in the future, and for open space based on recent sales figures of similar open space lands in Belmont, other portions of San Mateo County and Santa Clara County.

2. Property Tax Revenue Generated

LAND USE	TOTAL ASSESSED VALUE	CITY TAX RATE	CITY REVENUE	GENERAL COUNTY TAX RATE	COUNTY REVENUE	COMB. SCHOOL TAX RATE	SCHOOL REVENUE	OTHER TAX RATE	OTHER REVENUE	TOTAL TAX REVENUE
Resi- dential	\$11,465,000	1.0256	\$114,508	1.8250	\$203,761	4.838	\$540,162	0.1700	\$18,980	\$877,411
Open	125,007	1.0256	1,282	1.8250	2,281	4.838	6,048	0.1700	213	9,824
										\$877,235

3. State Tax Revenues to City

<u>Tax Item</u>	<u>Factor</u>	<u>Population</u>	<u>Total Taxes</u>
In-lieu taxes	\$11.36 per person	990 persons	\$11,246.40
Gas taxes	4.35 per person	"	4,306.50
Collier-Unruh Gas Tax	5.068 per person	"	5,017.82
Engineering Allotment	0.33 per person	"	326.70
Highway Carriers Uniform Business License Tax	0.103 per person	"	101.97
Cigarette Tax	2.00 per person + 6% of sales tax revenue (9,789)	"	2,566.80
		TOTAL	\$23,565.69

4. Per Capital Expenditures for City-wide Services, City of San Mateo 1977-78.

Total Operating Budget Minus Bonds, Capital Improvements _b	Population	Per Capita Expenditures
\$19,575,038	78,669	\$248.82

Capital Improvements = \$18,521,124
Bond Debt 1,104,052

b. Tax rates were assumed to be constant over an entire site.

<u>Source</u>	<u>Factor</u>	<u>Population</u>	<u>Total Revenue by Item</u>
1. Property Tax	Sep Table 1	—	\$115,790
2. State Taxes Returned to City	Sep Table 1	—	23,565
3. Sales & Use Tax ^d	\$71.69 per capita	990	70,976
4. Delinquent Taxes Spec. Assessments	3.06 per capita	990	3,029
5. Building Permits	2.50 per capita	990	2,475
6. Service Charges	30.55 per capita	990	30,243
7. Grants General ^e	28.30 per capita	990	28,093
		TOTAL	\$274,093
		Per Capita Revenue	\$276.86

d. Sales/Use Taxes = Include general sales, property transfer, transient occupancy and general admission; assumptions — it was assumed for the purpose of this study that 75% of all Sugarloaf residents would take place in the City.

e. Grants — General Revenue sharing, community development block and CETA were assumed to be apportioned on a population basis, and total tax base, which would be increased by Sugarloaf development.

New City Expenditures (operations & capital) for Sugarloaf Development

COST ITEM	FACTOR	UNITS WITH SUGARLOAF	TOTAL ANNUAL COST
Police Protection	1 officer & support per 1000/pop. @ \$31,880 per year.	990 or 1000 persons on Sugarloaf	\$31,880
Street & Drain Maintenance	\$1500 permit year	1 mile public streets and drains	1,500
Sewer Maintenance	\$1300 per mile	1-1/2 miles	1,468
Street sweeping and pickup	451/mile/year	1 mile public street	451
Garden pickup	8.25/home/year	405 homes	3,450
Sewage Treatment	\$44,798 per million gallon treated	100,000 gallon from Sugarloaf	4,480
Street lighting Replacement and Repair	-	Estimate \$250/year	250
Open Space Maintenance	80.00/acre	4 acres dedicated Open Space	320
		TOTAL	\$43,799
		Per Capital Sugarloaf Resident	\$ 44.24

Source: San Mateo City Budget; County of San Mateo Department of Public Works,
San Mateo County Planning Division.

B. Analysis/City Budget

Per Capita City Expenditure
for City-wide Services

Per Capita Revenue
to City from Sugarloaf

1. The per capita city expenditure for city-wide services is \$248.82. The per capita revenue to the city from Sugarloaf development is \$276.86

\$248.82

\$276.86

2. The per capita incremental city expenditures required to service Sugarloaf development, independent of other ongoing city costs are illustrated in the table below. It can be compared to the per capita revenue from Sugarloaf to indicate immediate short term effect on the city budget.

PER CAPITA FISCAL EFFECT OF SUGARLOAF DEVELOPMENT

Sugarloaf Per Capita Revenue	Sugarloaf Per Capita Expenditure	Positive Net Benefit PGR Capita
\$276.86	\$44.24	\$232.62

C. Schools Impact

The development of Sugarloaf will have a positive fiscal effect on the Belmont School District, and the Sequoia Union High School District because the development will provide high value residential units, with smaller family sizes. This positive impact is shown below:

<u>School District</u>	<u>Tax Rate</u>	<u>Assessed Value Sugarloaf</u>	<u>Total Revenue to District</u>	<u>Costs to District for Sugarloaf students</u>
Belmont School District	\$2.2712 per \$100 A.V.	\$11,290,002	\$256,418	\$139,650
Sequoia High School District	\$1.5643 per \$100 A.V.	\$11,290,007	\$176,609	\$ 86,100

D. Business and Employment

The development of Sugarloaf will have a positive benefit for business and employment in West San Mateo.

Construction Employment. Although the majority of the construction workers will come from outside the San Mateo/Belmont community, some local contractors may be hired for a variety of tasks.

Long Term Employment. The 1000 people who will live on Sugarloaf will demand goods and services, and have a positive effect on shopping areas, such as Crystal Springs Shopping Center, and the Laurelwood Shop-

ping Center. The Regional Shopping Center at Hillsdale, should also benefit to an incremental degree.

These findings are based on the assumptions that there will be net new residents to the area, with the San Mateans who would move to Sugarloaf being replaced by new residents. This migration would then produce "new" demand for goods and services. This assumption is supported by the very low vacancy rate for mid-Peninsula homes, discussed earlier in the EIR.

E. Institutional Impact. The impacts on institutional structures such as hospitals, schools, police services, fire services and libraries are discussed in the body of the EIR.

ESTIMATED LAND IMPROVEMENT COSTS

A preliminary estimate of construction costs been prepared by Brian, Kangas, Foulk and Associates, the developer's engineer. The actual cost of improvements is expected to vary

somewhat due to such factors as increased materials and labor costs that will probably occur between the estimate date and the actual time of future construction. The figures are useful for understanding the relative magnitude of project costs.

<u>Description</u>	<u>Cost</u>
Water Tank	\$250,000.00
Earthwork	700,000.00
Sanitary sewer mains and services	224,000.00
Water mains, services and hydrants	226,000.00
Underground electrical and telephone system	96,000.00
Storm drainage conduit system	120,000.00
Curb, gutter and sidewalk	96,000.00
Paving	225,000.00
Street lighting	48,000.00
Street scape	<u>12,500.00</u>
TOTAL ESTIMATED CONSTRUCTION COSTS	\$2,027,500.00

Approval of the General and Specific Plans for Sugarloaf will provide new housing units to meet an existing demand for housing. However, the sales prices predicted by the developer would allow only upper middle and upper income families to purchase the units.

In order to respond to the goals of the City and County General plans concerning the provision of low and moderate income housing, the following proposed housing policies should also be considered in adopting the General and Specific plans.

General Plan

1. The developer/landowner will be encouraged to provide lower cost housing within the project which is consistent with intent to provide a mix of housing types, for different family types.

2. Lower income units shall be provided both within the townhouse and condominium structures if at all possible. Lower cost units in the condominium buildings should not be concentrated in any one building.

Background

Housing Market Area

The housing units on Sugarloaf will probably be sold to families now residing in San Francisco or in San Mateo County. Few residents of the East Bay and Santa Clara County where housing costs are cheaper will be attracted to Sugarloaf to fulfill their housing needs.

Housing Stock Condition

In 1975, the year of the most recent comprehensive housing data, San Mateo County had a total of 219,464 housing units. Of this total 70% were built between 1950-1975, and represent sound housing stock.

Additionally, in 1977, 6,276 or 2.9% were considered substandard.¹

Within the City of San Mateo, the total number of substandard units is 1770, while there are a total of 32,422 housing units in the entire city.²

Of these substandard units Countywide, 6,080 are considered suitable for rehabilitation. Within the City of San Mateo, all 1,770 units qualify for rehabilitation.

Population Projections

Population projections are provided by the Association of Bay Area Governments and the State Department of Finance. These population projections are checked by County Planning staff. Population projections indicate a relative need for new housing with the County.

¹San Francisco Bay Area Housing Profile, 1970-75 and Draft Regional Housing Plan and Draft EIR Association of Bay Area Governments, Berkeley, California, November, 1970.

²City of San Mateo Department of Community Development, January, 1978, data as of January, 1977.

The County population in July, 1970 was 588,000 and is expected to increase at approximately 4%/year to 648,000 by the year 2000.³

Along with this population increase, the household size is expected to decrease, which would mean a greater number of persons would be forming new households thus increasing demand for new units. For example in January 1977, the household size for occupied units was 2.69 persons. By the year 2000, it is expected to decrease to 2.20 persons. Within the city, the present household size is 2.62 and is expected to decline similarly.⁴

Housing Need

Region - ABAG reports indicate that if substandard housing is to be eliminated by 1985, an average of 19,600 units would have to be rehabilitated each year between now and then. An additional average of 6,200 units will have to be replaced or rebuilt each year to make up for the "loss" of units that are substandard but unsuitable for rehabilitation.

In the region 62,000 households are currently receiving assistance through a variety of government subsidy programs. If current trends continue up to 600,000 households could require assistance by 1985. Thus, there is a clear need

³San Mateo County Planning Division and Association of Bay Area Governments, Minutes-Projections Technical Advisory Committee, July 28, 1977.

⁴Profiles of Change, Map Series by Census Tract, R.L. Polk and Company, 1973-1974.

County

ABAG reports that the County will need a total of 254,790 units by 1985 with a ten year construction goal of 38,110 units or 3,811 units a year until 1985.³

The Housing Assistance Plan prepared by the County shows approximately 15% of County households now need some form of housing assistance due to deteriorating structures, overcrowding or excessive rents. In the County, excluding Redwood City, Daly City, and San Mateo, 21,618 households require assistance. ABAG reports an even greater need, stating that 29.7% of all County households exhibit the housing problems named above.³

City

The City of San Mateo reports that 120 owners and 5,609 renter families need housing assistance of some kind. The City also projects this need to continue next year and following years at 6,400 families.

Methods of Achieving Lower Cost Housing

Government subsidies cannot provide all of the housing for low and moderate income groups. However, lower cost units can be provided in the conventional market. Some examples of methods to provide these units are:

1. Reducing floor area of units to minimum requirements.
2. Deletion of certain amenities such as convenience bathrooms, libraries, and oversized rooms.

3. Use of modular construction rather than on-site construction.
4. Provision of high density clustered units to reduce the land area necessary for each unit.
5. Devoting a portion of total units to rental status.

Existing Programs

Region. There is no regionwide program to rehabilitate or build low and moderate income housing. However, a Regional Housing Plan soon to be completed will include a subsidy distribution system that will affect the distribution of federal funds to local governments.

County. The County has a Community and Housing Development program implemented by a Housing Assistance Plan to provide new and rehabilitated low and moderate income.

Based on projections for the 1978 Fiscal year, the County expects to spend approximately \$2 million a year in federal housing assistance funds (new construction and rent subsidy) for the entire County, including San Mateo. This level of funding should continue into future years, if federal housing programs continue.

Separately, the County is now (FY1978) spending \$500,000 - \$600,000 a year on housing rehabilitation and in the period 1975-1977 123 homes were rehabilitated. This level of funding is expected to continue into coming years.

City. The City of San Mateo has a Housing and Community Development Program which is separate from the County's. The City has concentrated on

rehabilitation programs, and for the current 1977-78 fiscal year expects to spend \$300,000. Over the past 2-1/2 years, 72 homes have been rehabilitated using these program funds. This level of funding is expected to continue in the future. At present, the City's Housing Assistance Plan is the program for providing new low and moderate income units. This is the goal of the Housing Element of the City General Plan.

Findings:

1. There is a need for both new and rehabilitated low and moderate income housing units through the region, the County and the City.
2. Providing new low and moderate income units in San Mateo County will be extremely difficult because of rapidly rising residential land values; greatly increased federal subsidies would be necessary to offset these costs.
3. The City's Housing Assistance Plan is the established program for providing new low and moderate income units.
4. Providing low and moderate income housing units on Sugarloaf is inconsistent with City's adopted Housing Assistance Plan. Subsidized low and moderate income units may be not feasible on Sugarloaf. The provision of lower cost units on Sugarloaf would respond to the regional need for a wider variety of housing types for broader range of income and age groups.
5. While low and moderate income units should be provided in both the condominium and townhouse units, lower construction costs in the condominium units may make it more feasible to

APPENDIX D. CARGUS CORPORATION PROPOSAL

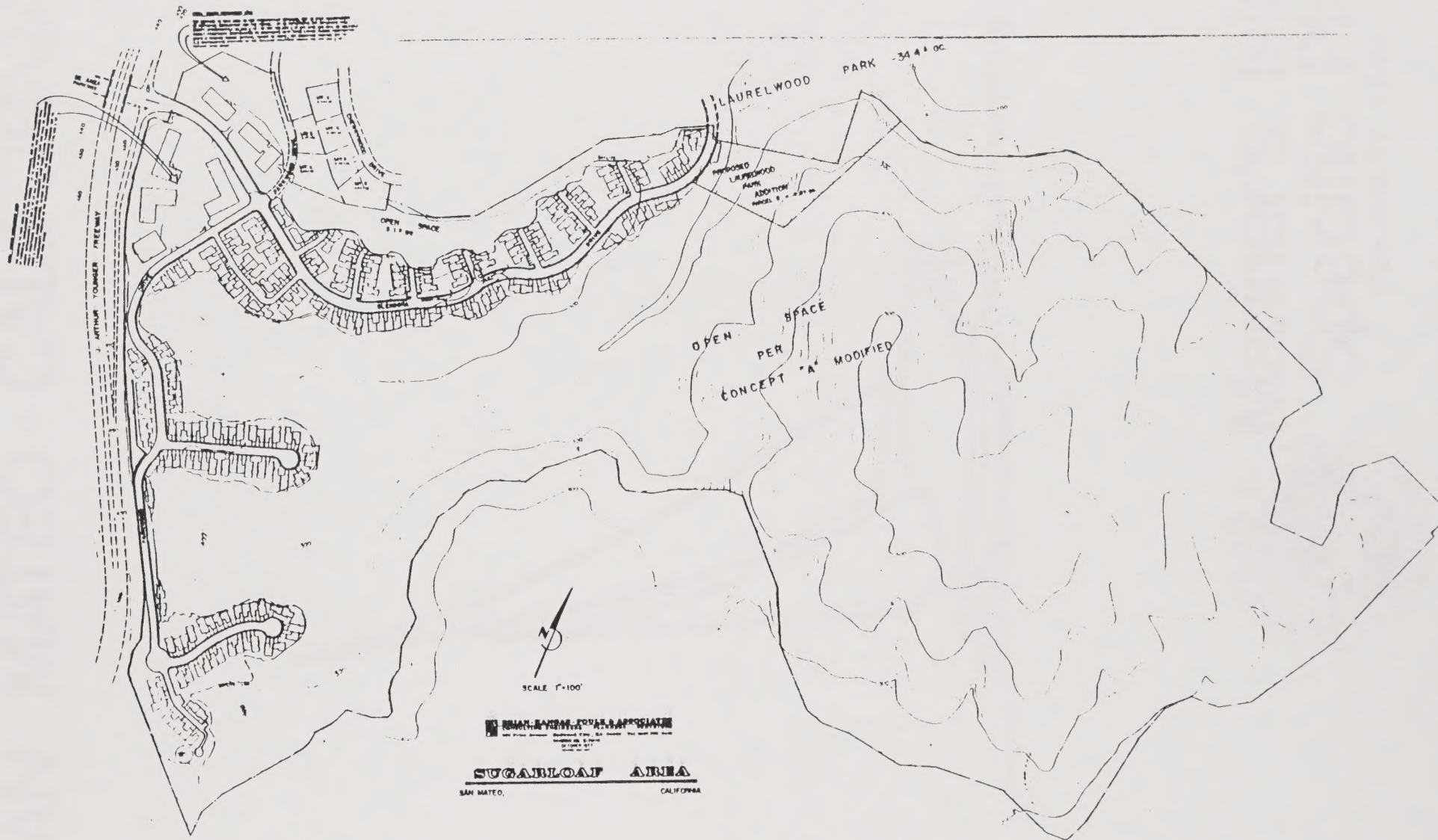
provide the lower income units in the structures.

6. While the developer may have more opportunity to provide low and moderate income units if more of the total site were to be used, severe environmental impacts would result on the natural environment and public services, this

is why the Transfer of Development rights approval was used to relocate development.

7. Innovative programs such as the Palo Alto Housing Corporation programs which require that a proportion of all new units be for low and moderate income families, could be adopted to other locations in the region.

APPENDIX C: CARGUS CORPORATION PROPOSAL



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Mariner's Island Specific Plan

FEBRUARY 1985

MARINER'S ISLAND SPECIFIC PLAN

City of San Mateo General Plan

City of San Mateo, California

November, 1984

Recommended by the Planning Commission May 29, 1973
Adopted by the City Council June 18, 1973

Revisions recommended by Planning Commission January 8, 1979
Revisions adopted by City Council February 21, 1979

Revisions recommended by Planning Commission January 25, 1982
Revisions adopted by City Council February 17, 1982

Revisions recommended by Planning Commission November 8, 1982
Revisions adopted by City Council December 6, 1982

Revisions recommended by Planning Commission October 9, 1984
Revisions adopted by City Council November 19, 1984

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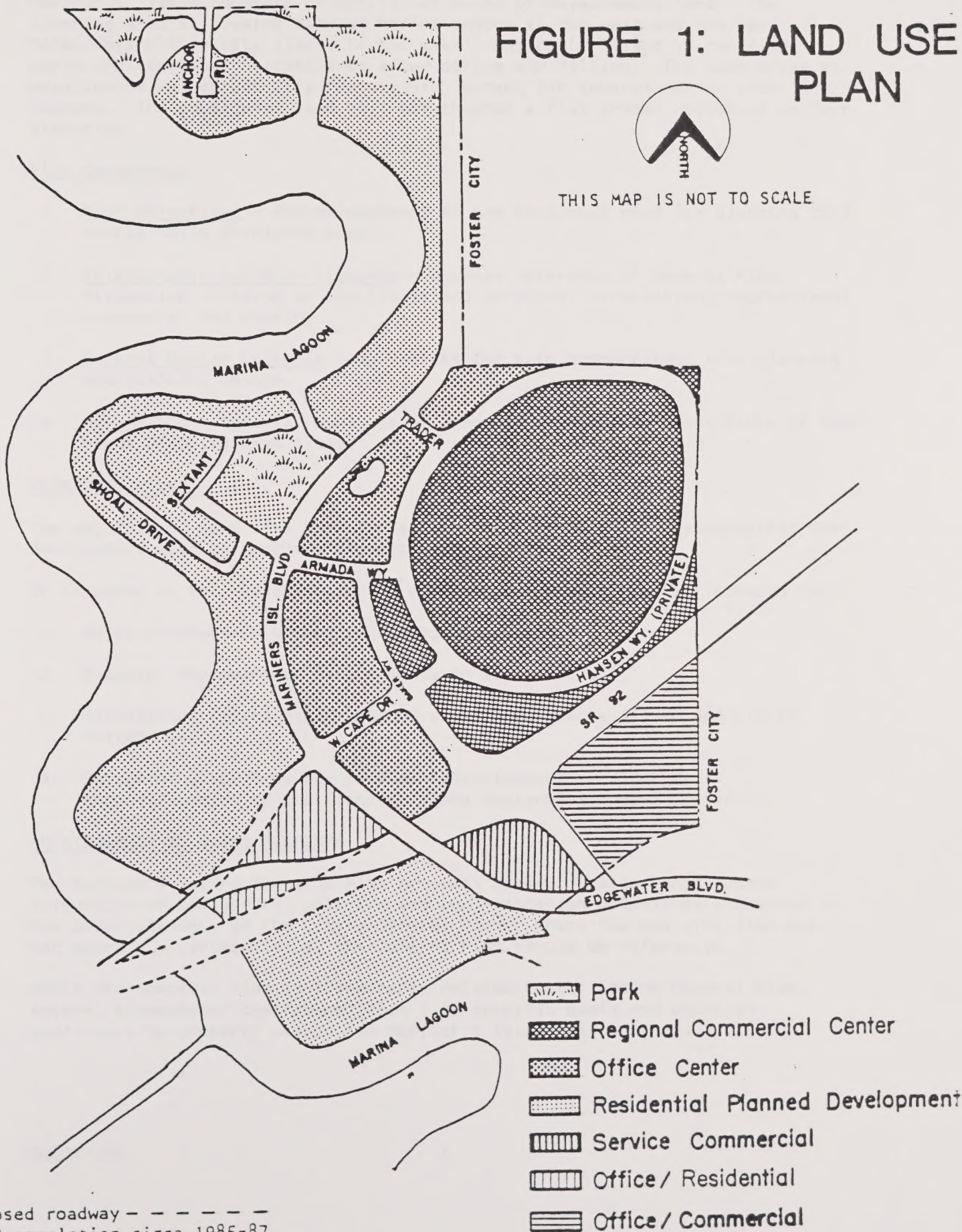
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FIGURE 1: LAND USE PLAN



THIS MAP IS NOT TO SCALE



INTRODUCTION

Mariner's Island consists of 263.13 net acres of developable land. The planning area is located between Marina Lagoon to the west and the San Mateo/Foster City city limits to the east. Mariner's Island is reclaimed marsh and tidelands, established after diking and filling. The land prior to development was essentially featureless, except for several narrow interior lagoons. The subsequent land fill has created a flat graded region of uniform elevation.

Plan Components

1. Plan Objectives - Acknowledgement of the continued need for planning this nearly fully developed area.
2. Relationship to Other Elements - A cross reference of General Plan discussion relating to facilities and services, circulation, recreational resources, and housing.
3. General Design Criteria - Guidelines for site preparation, site planning and building design.
4. Area Plans - Specific analysis of land use development constraints of the eight Planning Area sites.

PLAN OBJECTIVES

The majority of land area has been either fully developed or is earmarked for development with an approved project.

In response to this level of "build out," this Specific Plan is intended to:

1. Guide development of the remaining vacant sites.
2. Document the approved developments in scale and use.
3. Establish a relationship between uses in Mariner's Island and within Foster City.
4. Determine guidelines for private redevelopment and further intensification of the Fashion Island Regional Shopping Center.

RELATIONSHIP TO OTHER ELEMENTS

The Mariner's Island Specific Plan provides a more detailed and focused discussion of the general policies and implementation guidelines contained in the other elements of the City's General Plan. Where the Specific Plan does not address a certain issue, the General Plan should be referenced.

While the Specific Plan is inseparably related to the entire General Plan, several elements of the General Plan cite specific goals and policies applicable to property within the Mariner's Island planning area.

Circulation Element - Specific reference is made in the Circulation Element to the need to widen Third Avenue and to develop Third Avenue and SR92 as potential scenic highways (page 78). The provision of bicycle and pedestrian paths, street beautification and landscaping and encouragement of mass transportation systems as outlined in the development criteria for Mariner's Island also implement the policies originally identified in the Circulation Element.

Bikeways Element - Further discussion of the need for a bikeways system is contained in the Bikeways Element, including a map of proposed bikelanes and bikepaths for the Mariner's Island area (page 93).

Open Space/Parks and Recreation Element - The Open Space and Conservation Element and the Parks and Recreation Element discuss the recreational requirements of the Mariner's Island area, such as the provision of parks and public access to Marina Lagoon. Priority is given to park acquisition over development, with several methods for park acquisition discussed (page 147, Parks and Recreation Element).

Shoreline Specific Plan - In addition, the Shoreline Specific Plan discusses proposed improvements and recreational opportunities for the Bayfront and along Marina Lagoon to make the areas more accessible to the public. Proposed improvements for San Mateo Shoreline Park extend into the Mariner's Island planning area, and require property acquisitions and easements for the development of recreational facilities and the establishment of marshlands.

Housing Element - The Housing and Land Use Element establishes a density ratio for the Mariner's Island area (page 37), which allows a medium-high density classification. Given the relatively large acreage[s] of vacant land designated for residential use on Site V (see Figure 2, page 6), the Mariner's Island area represents a significant opportunity to implement the policies identified in the Housing Element. Specifically, housing opportunities for low and moderate income households may be expanded by the development potential available on these sites.

Public Buildings and Facilities Element - The 1966 Drainage Phase of the Public Buildings and Facilities Element discusses the Mariner's Island watershed area (page 7-1). Marina Lagoon functions as a storm drainage facility for this area. Increasing the pumping capacity and outfall facilities at the north end of Marina Lagoon is needed to provide storm drainage capable of controlling a ten-year frequency storm.

Environmental Resources Management Element - The multiple use of Marina Lagoon as a scenic recreational resource and a drainage basin for storm water retention is encouraged in the Environmental Resources Management Element. The need to provide public access to the lagoon and to preserve wildlife habitats is also emphasized. The action program discusses special studies, and code additions and revisions designed to address site development constraints in the Mariner's Island Area related to seismic and general safety, noise, and energy conservation, which are yet to be completed.

GENERAL DESIGN CRITERIA

The basic premise of design guidelines for future development is that the majority of development sites are either built, under construction, approved for construction or subject to a known type and density of construction. Because of this "built out" condition, these guidelines will apply only to a limited amount of land area. As a basic site planning model, the following criteria will also apply to future intensification; however, the site specific Design Criteria may recommend more detailed planning requirements.

1. Project Review - All projects in the Planning Area shall be reviewed by the City Council. Site VI: Residential East will require the review and approval by both San Mateo and Foster City of a coordinated development plan which crosses the City boundary. In addition, all projects located within the Shoreline Redevelopment Project Area are subject to review by the Redevelopment Agency. See Figure 2, page 6 for all site locations.
2. Lagoon Treatment - Pedestrian and bicycle pathway public access shall be provided along the Marina Lagoon shoreline on Site II: Office Center, Site III: Office/Commercial, and Site V: Residential West. The "rabbit ears" interior lagoon be retained in the existing form or reconfigured to provide a salt water turning basin with a pedestrian pathway link to Mariner's Island Park. Any change to the configuration of the lagoon shall be approved by the Army Corps of Engineers and the State Department of Fish and Game as well as other appropriate regional, state, or federal agencies that require permits.
3. Landscaping - All landscaped setbacks or buffers shall be bermed and planted to provide screening of parking lots and roadways. In order to emphasize the water oriented theme of Mariner's Island, development shall include outdoor manmade water features such as ponds, reflecting pools, or fountains. Views of these amenities from the building shall be emphasized.
4. Building Height - A transition of building height will be maintained when new construction occurs adjacent to Marina Lagoon and residential development. Buildings within 100 feet of the main lagoon channel will not exceed two stories. Office building construction directly facing or adjacent to residential development shall incorporate tiered or terraced elevations to reduce building bulk of highrise structures. Residential construction fronting on SR92 shall maintain a two-story limit in order to take advantage of acoustic screening.
5. Wind - The response of building orientation, pedestrian circulation and the usability of outdoor plazas and recreation areas shall be demonstrated in all planning applications to provide protection from prevailing northwesterly winds.
6. Signs - Monument signs for building name and address are required for all uses. Building face or roof signs shall be oriented in an easterly direction. Pole signs shall be limited to the extent of the Sign Code to only highway service uses. Signs within the Fashion Island Mall shall continue to be master-planned in a coordinated program.

Real estate lease and sale signs shall be limited only to the development site.

7. Soils Condition – The entire Planning Area rests on land fill of varying age, quality, and depth which causes differential rates of settlement. Due to these highly compressible soils, a preliminary soils investigation of all site improvements shall be submitted with every planning application.

It is recognized that over a 20 to 30 year-period this differential settlement pattern may require major reconstruction of parking lots, site landscaping, and connections to buildings. All vacant sites shall be filled to the 104 foot elevation as mitigation for dike failure and subsequent flooding.

8. Utilities – Because of the soil condition and area elevation relative to the sewer collection network, sewer and storm drain capacities and a need for pumping shall be investigated for all sites. The Foster City Estero Municipal Water District provides water service to the Planning Area and is the permit approval agency for meter installation.
9. Traffic – Mariner's Island is served by a network of arterial and collector streets. Any new development will place increased demands on the existing circulation network, and shall require the preparation of a traffic circulation study; the study shall include specific traffic planning and engineering design recommendations. Because SR92 and Mariner's Island Boulevard bisect the Planning Area, bicycle, pedestrian, and local and regional transit links shall also be included as part of the project design.

The primary concerns are the use of Hansen Way, the privately owned loop road around the shopping center, as a major arterial connection to Foster City, and the cumulative effect of full buildout of the Foster City area. As traffic volumes increase, reconfiguration of the mall parking lot will be required.

The completion of the SR92/Bayshore overpass will reduce traffic congestion and will allow the extension of West Cape Drive to Norfolk Street as the primary on-grade connection to Mariner's Island.

10. Emergency Services – Through a mutual aid agreement primary emergency response is provided by Foster City. The existing Fire Station on Norfolk Street is judged to be adequate for projected development.

AREA PLANS

The Mariner's Island Planning Area is divided into eight area planning sites. The map on this page titled Sites and Redevelopment Project Areas indicates the location of the sites, and also shows the boundaries of the Redevelopment Project Area.

The following discussion provides a specific analysis of land use and development constraints for the eight sites. Refer to Figure 1: Land Use Plan to understand the development potential of the eight areas. Site specific design criteria are provided as a supplement to the guidelines provided in the General Design Criteria.

The following table summarizes the amount of land area designated and developed with specific land uses for the entire Planning Area:

<u>LAND USE</u>	<u>TOTAL DESIGNATED ACREAGE</u>	<u>DEVELOPED OR COMMITTED ACREAGE</u>
Regional Shopping Ctr.	78.21	78.21
Office Center	27.12	19.16
Office/Residential Use	10.53	10.53
Service Commercial	6.43	0
Residential	110.18	110.18
Office/Commercial	18.15	
Park	12.51	12.51
Total	263.13	230.59

Hotel Development

With the proper level of intensification of office development, a demand may be created for a hotel to serve the Mariner's Island/Foster City region.

Hotels are determined to be a compatible and desirable use for Site I and Site IV.

I REGIONAL SHOPPING CENTER AND ANCILLARY COMMERCIAL CENTER

Location

The Fashion Island Shopping Center Mall and satellite Bank of America structure site at the easterly terminus of West Cape Drive incorporates 74.86 acres, 837,241 square feet of mall structure and 55.64 acres of parking lot paving and landscaping. The center is bounded by SR92, the city of Foster City, and a peripheral ring of office structures in the westerly direction. The adjacent ancillary 3.35 acre commercial site fronts on three public streets and Hansen Way, providing a total of 78.21 commercial acres.

Site Characteristics

The axial shopping center plan links four major anchor department stores with a single-level retail mall. The surrounding parking lot provides an equally distributed 4,446 stalls which exceeds the 3,083 stalls required by the parking standards. With this parking excess of approximately 1,363 spaces is a future additional development potential for satellite service uses on the outer boundary of the mall parking lot adjacent to Hansen Way. This privately maintained road has ingress and egress easement rights benefitting the adjacent ancillary commercial site and office areas A and B (see map on page 10).

A. Physical

The present configuration of Hansen Way treats this primary parking lot circulation link as a major collector street, particularly on the western side. This configuration is adequate, with minor improvement to decrease circulation conflicts, for the present level of development. Further intensification of the Mall Site will require improvements which will separate through traffic and parking lot circulation. The upgraded Hansen Way may be publicly or privately maintained and shall be designed to City standards.

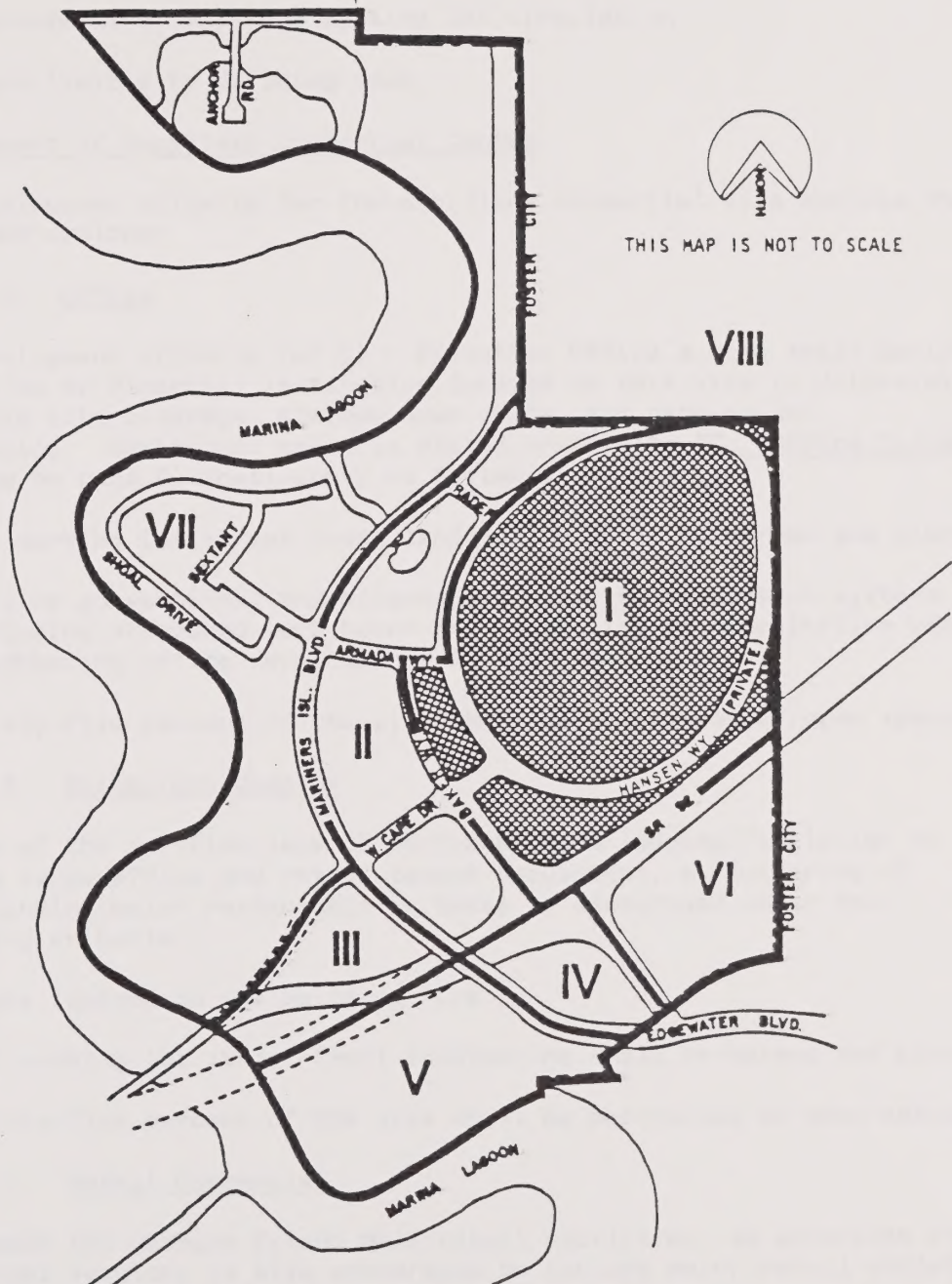
B. Land Use

1. Compatible Uses - The Fashion Island Mall management may elect to intensify the commercial activity of the shopping center facilities for basic retail services such as food, pharmaceutical and household variety sales, auto services (under special permit), or other permitted compatible uses such as a hotel. Development of the ancillary commercial site may include offices and financial institutions, restaurants and lodging facilities, and commercial services such as major retail outlets.

Development Criteria

A. Intensification of Shopping Center

Intensification of the shopping mall by additional building height or the introduction of additional retail space shall follow the established pattern of materials and architectural detailing. Satellite developments using excess under-utilized parking shall follow guidelines of:



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I REGIONAL SHOPPING CENTER AND
ANCILLARY COMMERCIAL CENTER

1. Appropriate height and land coverage limitations to maintain views of the mall buildings from SR92 freeway.
2. Use of materials consistent with existing mall.
3. Improvement of internal parking lot circulation.
4. Signs limited to building face.

8. Development of Ancillary Commercial Center

The development criteria for the ancillary commercial site include the following options:

Option 1: Office

The development criteria for E1 – Executive Office zoning shall apply to any office or financial institution located on this site in determining allowable site coverage, minimum open space, and parking lot landscaping. Additional criteria stated under Site II: Office Center (see map on page 6) shall apply as follows:

1. All parking lot street front landscaping shall be bermed and planted.
2. Utilize conventional and alternative mass transportation systems including staggered work hours and vanpooling in coordination with neighboring office developments in the Planning Area.
3. Thirty-five percent of the site shall be maintained as open space.

Option 2: Restaurant Complex

Because of the existing lack of restaurant and lodging facilities to serve a large office and retail tenant population, a clustering of free-standing major restaurants or hotel is encouraged under the following criteria:

1. Signs limited to the building face.
2. All parking lot street front landscaping shall be bermed and planted.
3. Thirty-five percent of the site shall be maintained as open space.

Option 3: Retail Commercial

To augment the Fashion Island Mall retail facilities, an extension of commercial services is also encouraged to include major retail outlets under the following criteria:

1. Signs limited to the building face.
2. All parking lot street front landscaping shall be bermed and planted.
3. Thirty-five percent of the site shall be maintained as open space.

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II OFFICE CENTER

Location

Surrounding Fashion Island Shopping Center along the westerly perimeter are four areas designated for office uses. These areas total 27.12 acres, including the portion of office area B covered by the lagoon.

The original 1973 Specific Plan defined a limit of 600,000 square feet of office park development on land zoned E1.

The following table indicates the historical sequence of the way the floor area limitation was distributed among the four office sites:

DISTRIBUTION OF ALLOWABLE FLOOR AREA
(expressed as square feet)

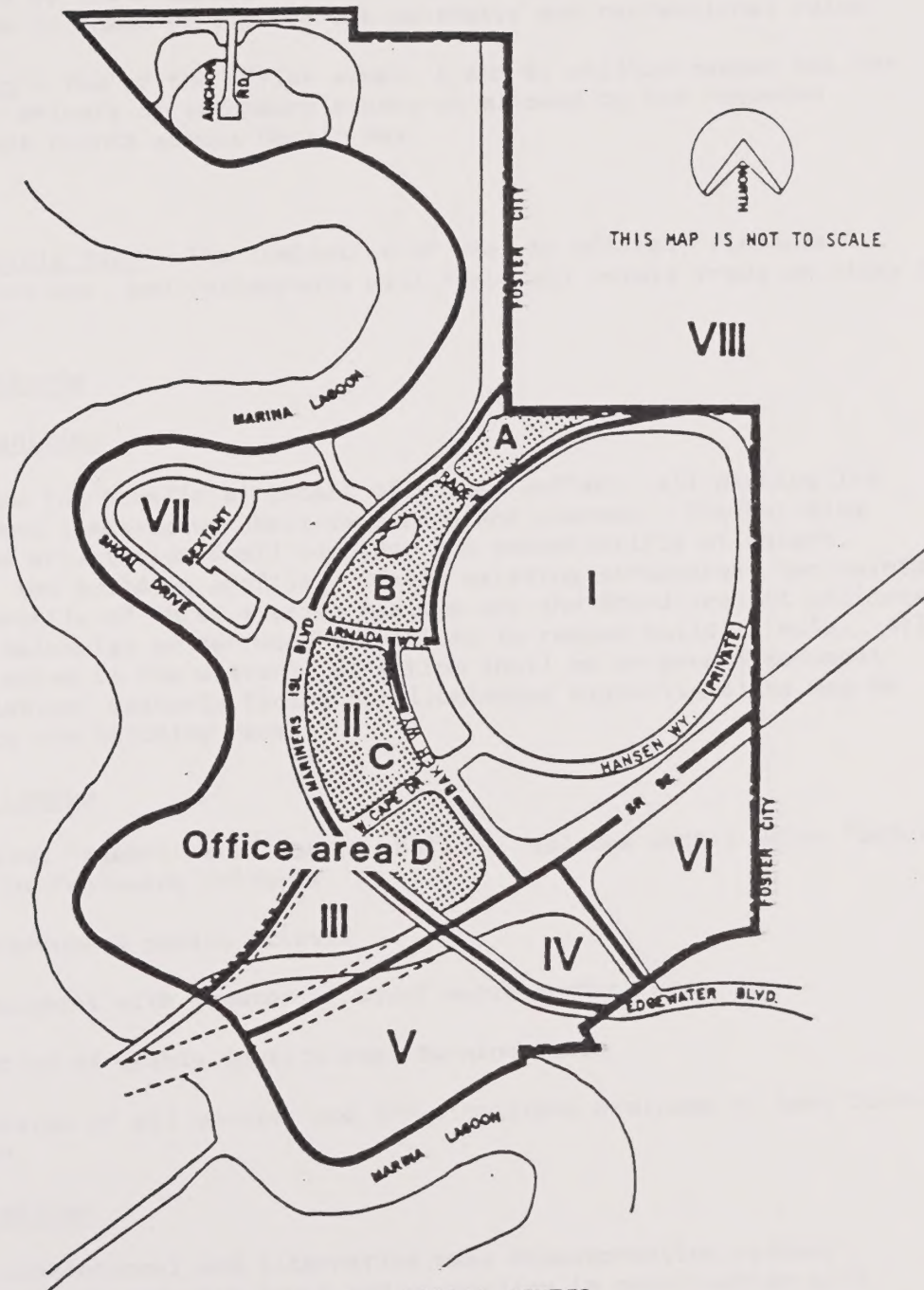
Office Site	I. Minute Order 331-80	II. Corrected for Actual Construction	III. Amended by Minute Order 264-81b
A	64,800	48,008	48,008
B	145,000 (175,000 s.f. minus "rabbit ears" of 30,000 s.f.)	145,000 (unconstructed)	176,013
C	241,112	241,112	241,112
D	125,888	125,888	125,888
TOTAL	576,800	560,008	591,021

The City Council by Minute Order 331-80 (Column I) affirmed the distribution of allowable floor area among the four parcels subject to that limitation. Actual construction of office area A did not utilize the full floor area allotment; Column II was adjusted to reflect the "as-built" condition. In July 1981, the City Council by Minute Order 264-81b (Column III) authorized the property owners for office area B to submit plans for up to 176,013 square feet of floor area, to be evaluated on its merits at the time the project is considered by the City Council (reference chart on page 10).

An additional 61,422 square feet of office space has subsequently been approved for Site III: Office/Residential Use (see map on page 6) and is not held to by a previously determined square footage quota.

Site Characteristics

The location of this office park between the moderate density residential planned development on the westerly side of Mariner's Island Boulevard and the shopping mall is intended as a visual and noise buffer. The site landscaping and setback requirements of E1 - New Executive Park zoning district helps provide additional visual relief from parking lot and roadway pavement.



II OFFICE CENTER

A. Physical

1. Interior Lagoon - Office area B will retain a water feature that replaces the last remaining remnant of the interior lagoon now covered by the shopping center. The "rabbit ears" lagoon may be altered in shape to improve the aesthetic and recreational value.
2. Traffic - Two of the office areas, A and B, utilize Hansen Way for either primary or secondary access as allowed by the recorded easement rights across Hansen Way.

B. Land Use

1. Compatible Uses - The limitation of uses to offices, financial institutions, and restaurants will focus all retail trade on Sites I and IV.

Development Criteria

A. Visual Amenities

To maximize the beneficial impact of visual buffers, all parking lot street front landscaping shall be bermed and planted. The building design and orientation shall consider the compatibility of height, material, and building profile. Of the existing structures, two maintain a lower profile of three stories maximum and the third project utilizes open air balconies on terraced elevations to reduce building bulk. All signs oriented in the westerly direction shall be on ground monument identification; easterly facing nonilluminated high-rise signs may be affixed to the building face.

B. Interior Lagoon

The existing "rabbit ears" lagoon shall be replaced with a water feature meeting the following criteria:

1. Uninterrupted public access.
2. Replacement with greater or equal water surface area.
3. Creation of usable on-site boat turning basin.
4. Diversion of all on-site and off-site storm drainage to boat turning basin.

C. Transportation

Utilize conventional and alternative mass transportation systems, including staggered work hours and vanpooling in coordination with neighboring office developments in the Planning Area.

D. Special Studies

The zoning and land area allows the development of large structures. Proper analysis of the suitability of a particular project shall require preparation of the following study, in addition to those required by General Design Criteria:

1. Wind alteration and shading.

III OFFICE/RESIDENTIAL USE

Location

The 10.53-acre site is bounded by Marina Lagoon, West Cape Drive, and Mariner's Island Boulevard.

Site Characteristics

A. Physical

1. Subject to high levels of noise, vibrations, and glare emanating from traffic existing on on-grade SR92. The realigned SR92 will be constructed at an elevation of eighteen feet above grade reducing the auto generated impacts.
2. Access to major arterials, West Cape Drive and Mariner's Island Boulevard, and SR92.
3. High visibility of site from SR92 and neighboring residential uses.
4. Traversed by SR92 until 1985, and by a private access road serving office area D and the site.
5. Adjacent to both residential uses and Marina Lagoon.

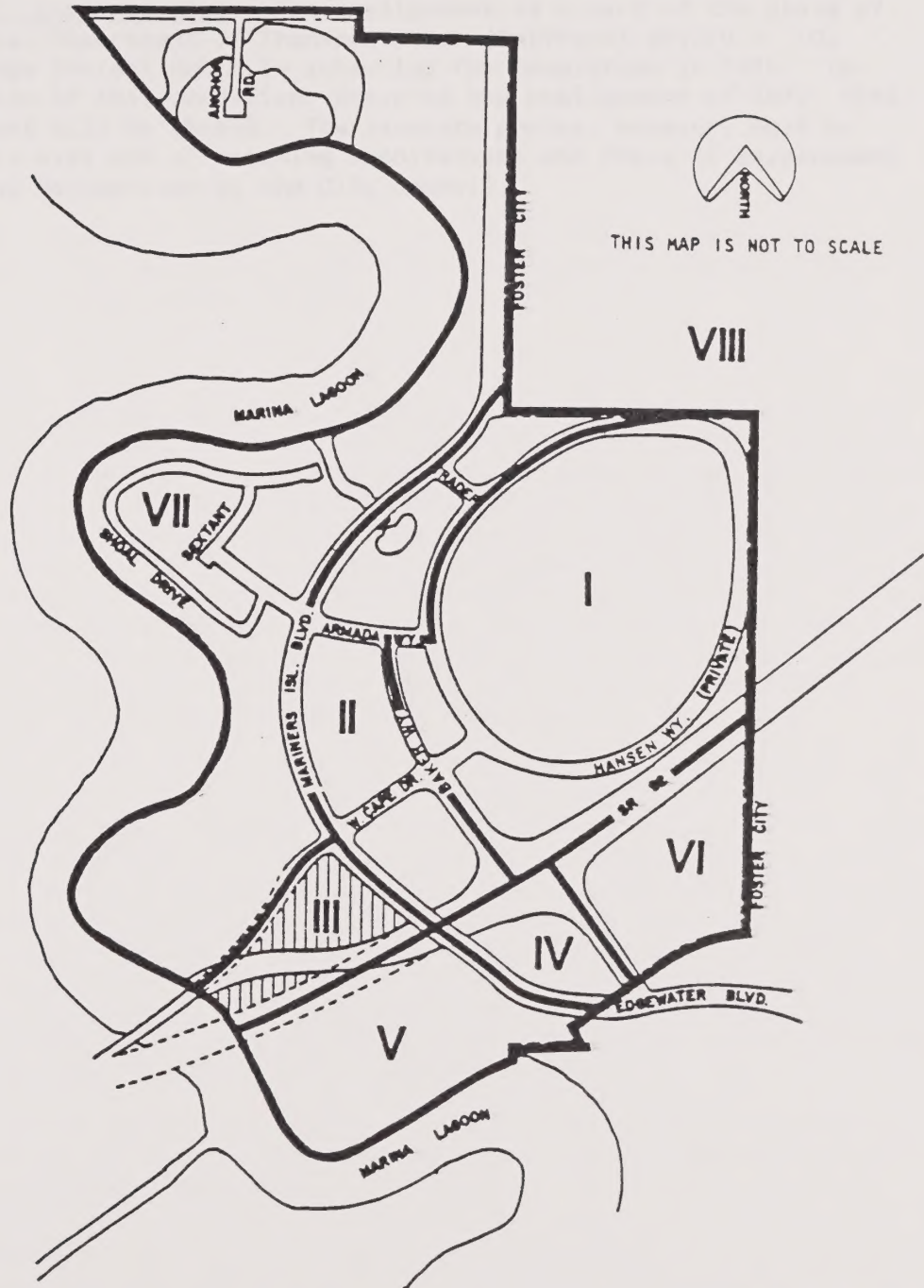
B. Land Use

1. Compatible Uses - Uses which are desirable and compatible with the site are executive offices subject to the standards of the E1 zone and/or residential uses subject to the standards of the R4 zone.

For each of the above options to reflect the built or approved floor area ratio (FAR) which is derived from Minute Order 264-81b Floor Area Distribution, an FAR limitation of .62 shall be applied.

Development Criteria

- A. In order to minimize impacts on Marina Lagoon and the neighboring residential uses, the two phases of development shall meet the following criteria:
 1. Buffer uses from SR92 noise, vibrations, and glare.
 2. Provide public access along Marina Lagoon and a paved and landscaped bicycle and pedestrian path with a minimum width of 12 feet.
 3. Provide a paved 10.5-foot-wide bicycle and pedestrian path and landscaped berming along West Cape Drive.
 4. Utilize conventional and alternative mass transportation systems, including staggered work hours and vanpooling in coordination with neighboring office developments in the Planning Area.
 5. Buildings fronting along Marina Lagoon must be set back a minimum of 12 feet or more from the lagoon high water mark, contingent on the recommendation of the Phase II Soils and Foundation Investigation.



III OFFICE/RESIDENTIAL USE

8. Timing

Because SR92 traverses a portion of the site, complete development will not be possible until SR92 is realigned to the configuration displayed on Figure 1: Land Use Plan. The realignment is a part of the State of California, Department of Transportation (CalTrans) SR92/U.S. 101 Interchange Project which is scheduled for completion in 1985. In recognition of this condition, prior to the realignment of SR92, site development will be phased. The separate phases, however, must be compatible uses and of matching architecture and Phase II development plans must be approved by the City Council.

IV SERVICE COMMERCIAL

Location

Located within the southeasterly quadrant of the SR92/Mariner's Island Boulevard interchange is approximately 6.43 acres of land. The site is specifically bounded by SR92, the SR92 eastbound off-ramp, Edgewater, and Mariner's Island Boulevard which is the same thoroughfare with a name change at the Foster City/San Mateo city limits.

Site Characteristics

The site is an island surrounded on all sides by a freeway and a major arterial street. The impacts of automobile circulation around and through the site determine the development pattern.

A. Physical

1. Traffic - Access to the site is severely restricted due to the limitation of the abutting off-ramp and elevated section of Mariner's Island Boulevard. A circulation pattern utilizing the adjacent Site V (see map on page 6) requires traffic to enter the site in a northbound direction with a right-turn-only movement onto windward way, because of a raised center island opposite the site entry. Southbound traffic on Mariner's Island Boulevard will enter the site via a shared access frontage road on Site V which passes under Mariner's Island Boulevard and through this site. Residents of Site V will likewise utilize the primary entry to this site to make right-turn-only entrance and exit movements.

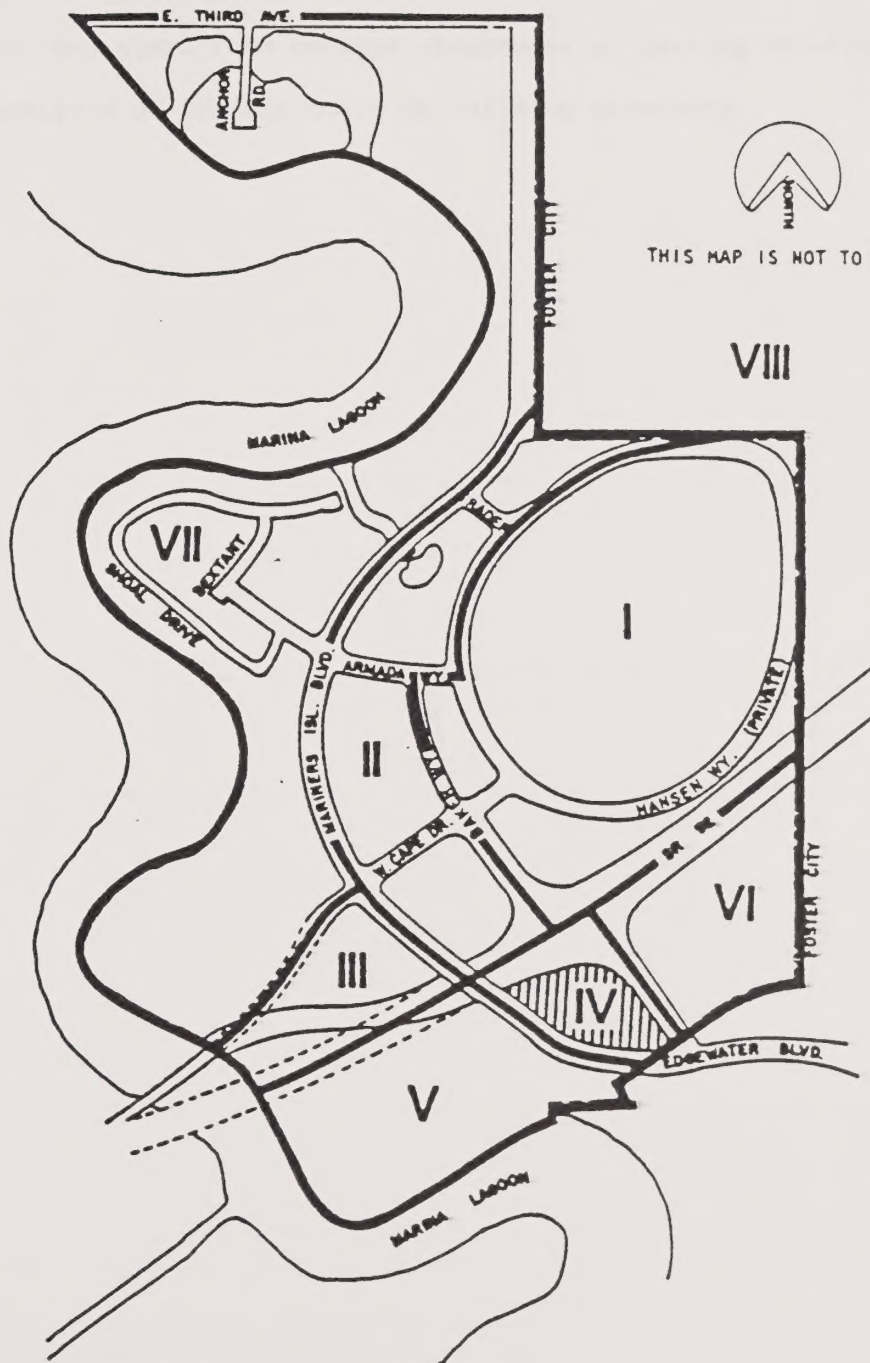
B. Land Use

1. Compatible Uses - Because of the existing lack of services to support a large residential, office, and retail population, neighborhood retail services of automobile fuel (under special permit), grocery, pharmaceutical and household variety sales are encouraged. With high visibility from SR92 and close proximity to a major employment center, a hotel with service retail facilities is also encouraged. Where small parcel sizes and restricted circulation patterns discourage retail uses which are dependent upon convenient vehicular access, limited office use is allowable.

Uses which are not compatible with the existing uses and cannot locate on the site include but are not limited to amusement centers and fast food restaurants.

Development Criteria

- A. Circulation - The development of either Site IV or V shall require the completion of the mutual access road across both sites, and the construction of a raised median in Mariner's Island Boulevard at site entries. Pedestrian and bicycle access shall be upgraded with crosswalks at Site IV and V entries.



IV SERVICE COMMERCIAL

- B. Signs - Pole, roof, or face signs shall not exceed current dimensional standards for any highway service uses.
- C. Special Studies - Any development shall require the preparation of the following special studies, in addition to those required by General Design Criteria:
1. Reflectivity and glare from on-site structures on passing motorists.
 2. Acoustic analysis of traffic noise on building occupants.

V RESIDENTIAL WEST

Location

Separated by SR92 from Site III: Office/Residential Use is an undeveloped area intended for residential use. The vacant site totals approximately 23.66 acres, and is bounded by Marina Lagoon, SR92, Mariner's Island Boulevard, and the city limits of Foster City.

Site Characteristics

A. Physical

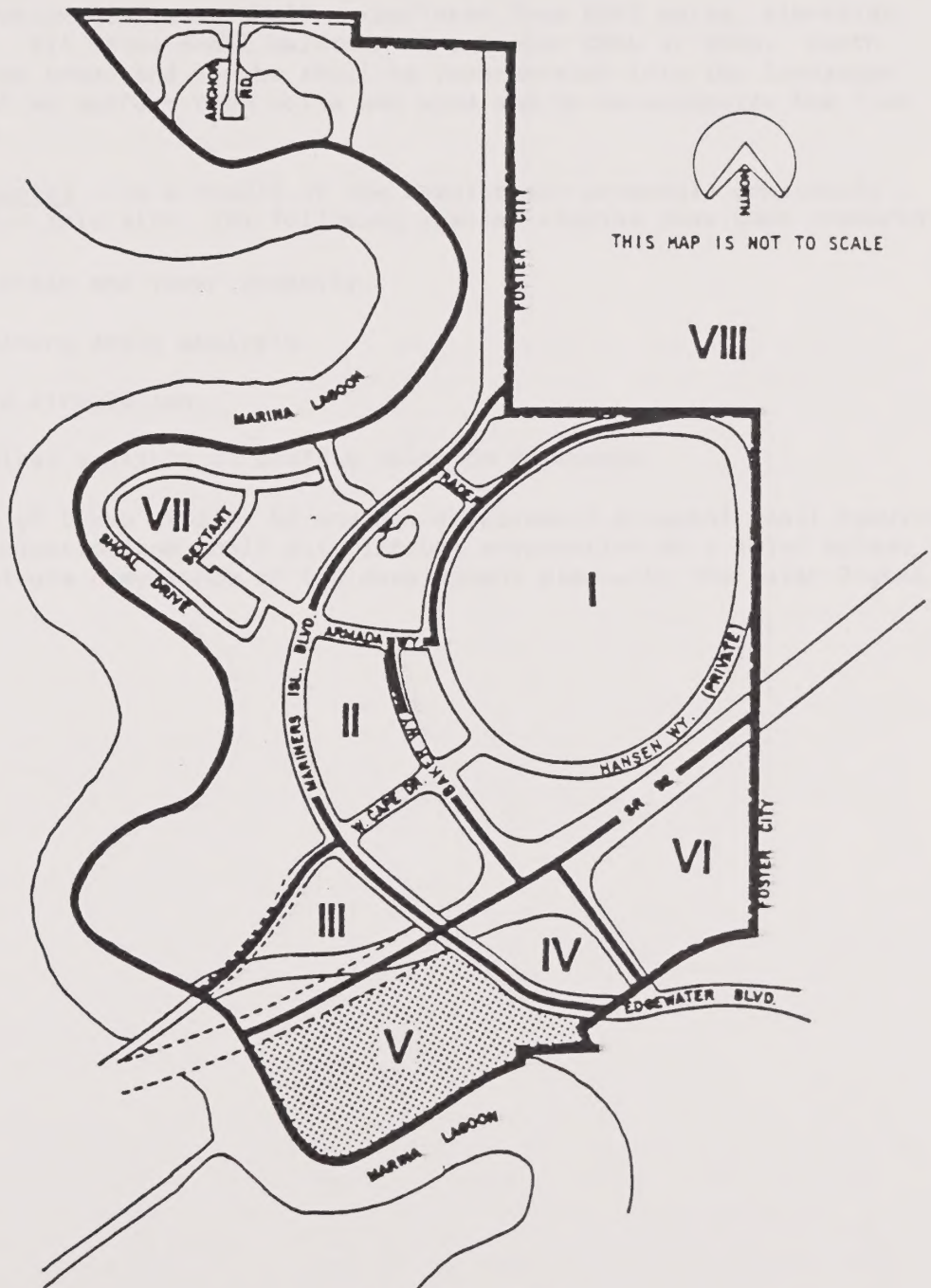
1. Traffic - Access to the site is provided by Mariner's Island Boulevard, but turning movements are severely restricted by a raised center island along this road. A circulation pattern utilizing the adjacent Site IV requires traffic to enter the site in a southbound direction with a right-turn-only movement because of the median strip opposite the site entry. Northbound traffic on Mariner's Island Boulevard will enter the site via a shared access frontage road on Site IV, which passes under Mariner's Island Boulevard and through this site. Traffic generated by Site IV will likewise utilize the primary entry to this site to make right-turn-only entrance and exit movements.

B. Land Use

1. Compatible Uses - High density multiplefamily developments such as condominium or apartment townhouses and flats are desirable uses on this site.
2. Redevelopment Housing Allotment - The number of large, vacant sites designated for residential use within the City of San Mateo is minimal. As a result, this site presents a good opportunity to utilize revenues generated by Tax Increment Financing, which allows a percentage of redevelopment income to be utilized for housing. Fifteen percent of the units must be provided for low and moderate income households.

Development Criteria

- A. Circulation - The development of either Site IV or V shall require the completion of the mutual access road across both sites and the construction of a raised median in Mariner's Island Boulevard at site entries. Pedestrian and bicycle access shall be upgraded with crosswalks at Site IV and V entries, to allow a pedestrian link between the residential uses and the neighboring commercial and office developments.
- B. Public Access and Open Space - Site development shall include provision of public access along the shores of Marina Lagoon, including a paved and landscaped bicycle and pedestrian path with a minimum width of 12 feet. Common open space and park area shall be provided adjacent to Marina Lagoon.



V RESIDENTIAL WEST

- C. Transportation - Site development shall include utilization of conventional and alternative mass transportation systems by including facilities or programs for bus, bicycle, and vanpools administered and promoted by the developer.
- D. Buffer - Residential uses shall be buffered from SR92 noise, vibration, and glare. All sites shall maintain an interior CNEL of 45dB. Earth berms, large trees and shrubs shall be incorporated into the landscape plan to act as buffers from noise and wind and to de-emphasize the flat topography.
- E. Special Studies - As a result of the development proposals previously approved for this site, the following special studies have been prepared:
1. Storm drain and sewer capacity.
 2. Preliminary soils analysis.
 3. Traffic circulation.
 4. Acoustical analysis of traffic noise on residents.

The application of these studies to any new development proposal shall require a separate reevaluation and shall also include preparation of a solar access study to demonstrate compliance of the development plan with the Solar Rights Act of 1978.

VI. OFFICE/COMMERCIAL

Location

The 20.15 acre vacant site is located southeast of the regional shopping center; approximately 2.00 acres of the property are within the city of Foster City. The remaining 18.15 acres are bounded by the city limits of Foster City, Edgewater Drive, and the Mariner's Island Boulevard off-ramp.

Site Characteristics

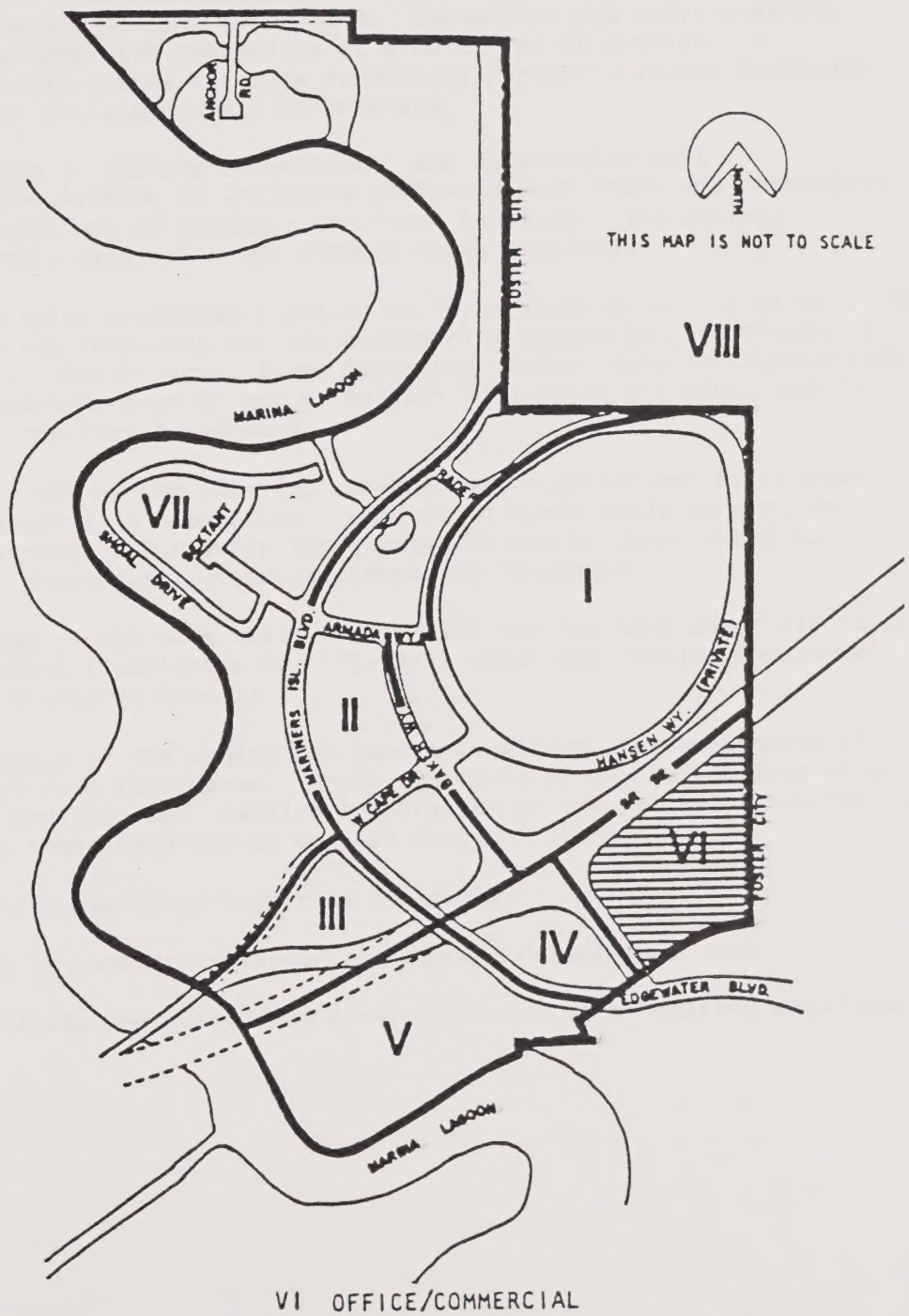
The site is subject to high levels of noise, vibrations, and glare due to its proximity to SR92 and the proposed "Town Center" high-rise mixed-use complex to the east in Foster City. Development of the entire site is intended to be for limited high technology office and research and development uses.

A. Physical

1. Traffic - Primary access to the property will be provided from the east, within Foster City. Circulation patterns shall connect the 20.15 acre development in a cohesive design that does not isolate the portions of the property under separate jurisdictions. The development shall provide a pedestrian link with the adjacent commercial and office complexes.

B. Land Use

1. Compatible Uses - Development of the site for offices and research and development uses shall include a reclassification of the property from a commercial to an executive office district. A Floor Area Ratio limitation of .62 shall be applied. An increase in Floor Area Ratio may be allowed if it can be demonstrated that the proposed development will not create transportation impacts in excess of any development on the site which would meet the .62 Floor Area Ratio. Uses which are compatible with the site include the following:
 - a. permitted uses in the E1 district.
 - b. public service uses subject to approval of a special permit.
 - c. high technology research and development uses including limited assembly, production, processing and testing, subject to approval of a planned development and conformance with the performance standards of the M1 district.
 - d. accessory commercial retail uses.
2. Agency Review - Development review procedures for this site are required by both the cities of San Mateo and Foster City, due to the split jurisdiction. Coordination between the two cities shall be provided by means of the review procedures for the preparation of the environmental document. Major issues in an environmental document subject to comment by the City of San Mateo will be regional traffic circulation and emergency services.



Development Criteria

- A. Circulation - Development of the site shall incorporate a continuous circulation pattern throughout the entire parcel, with no disruption in traffic patterns due to jurisdictional boundaries. Priority shall be given to the coordination of emergency services for the site and phasing of circulation improvements to provide adequate primary and secondary access to the site during all phases. Pedestrian and bicycle access shall be upgraded with crosswalks at Site IV and VI entries. A continuous bicycle lane or route connecting Mariner's Island Boulevard and Edgewater Boulevard shall be provided.
- B. Transportation - Utilize conventional and alternative mass transportation systems by including staggered work hours and vanpooling, and encouraging use of public transit and bicycles. Any project ownership shall administer and promote these programs.
- C. Buffer - Building occupants shall be buffered from noise, vibrations, and glare emanating from SR92 and the neighboring commercial and mixed-use developments. Earth berms, large trees and shrubs shall be incorporated into the landscape plan to act as buffers from noise and wind, and to deemphasize the flat topography.
- D. Open Space - 35% of the site inclusive of any right-of-way or easements shall be retained as open space. Landscaped berms shall be provided along all streets. Perimeter landscaping should be coordinated with CalTrans to provide an integrated landscape treatment.
- E. Sanitary Sewer - All uses shall comply with the Sanitary Sewer Use Rules and Regulations (Resolution No. 172-1978) which may require Industrial Wastewater Discharge Permits.
- F. Special Studies - The zoning and land area allows the development of [large] high rise structures. Proper analysis of the suitability of a particular project shall require preparation of the following studies, in addition to those required by General Design Criteria:
 - 1. Wind alteration from high rise buildings.
 - 2. Shading of outdoor use areas or adjacent residential uses.
 - 3. Reflectivity and glare from on-site structures on passing motorists.

VII. EXISTING RESIDENTIAL PLANNED DEVELOPMENTS

Location

The area bounded by Mariner's Island Boulevard, West Cape Drive, East Third Avenue, and Marina Lagoon exists as a completely built-out neighborhood of low density residential planned developments. Within this area is the developed Mariner's Island Park and the Seal Cove portion of the approved design concept for San Mateo Shoreline Park.

Site Characteristics

A. Physical

1. Access - All internal roadways, driveways, and parking areas are owned and maintained by the individual planned developments. Connecting circulation is provided by dedicated public streets as noted on the attached area map. Public access to Marina Lagoon includes pedestrian access at Mariner's Island Park, a walkway along the frontage of Harbortown, a seating area and dock off Shoal Drive, and a bikeway and pedestrian pathway skirting the lagoon parallel to Third Avenue.

B. Land Use

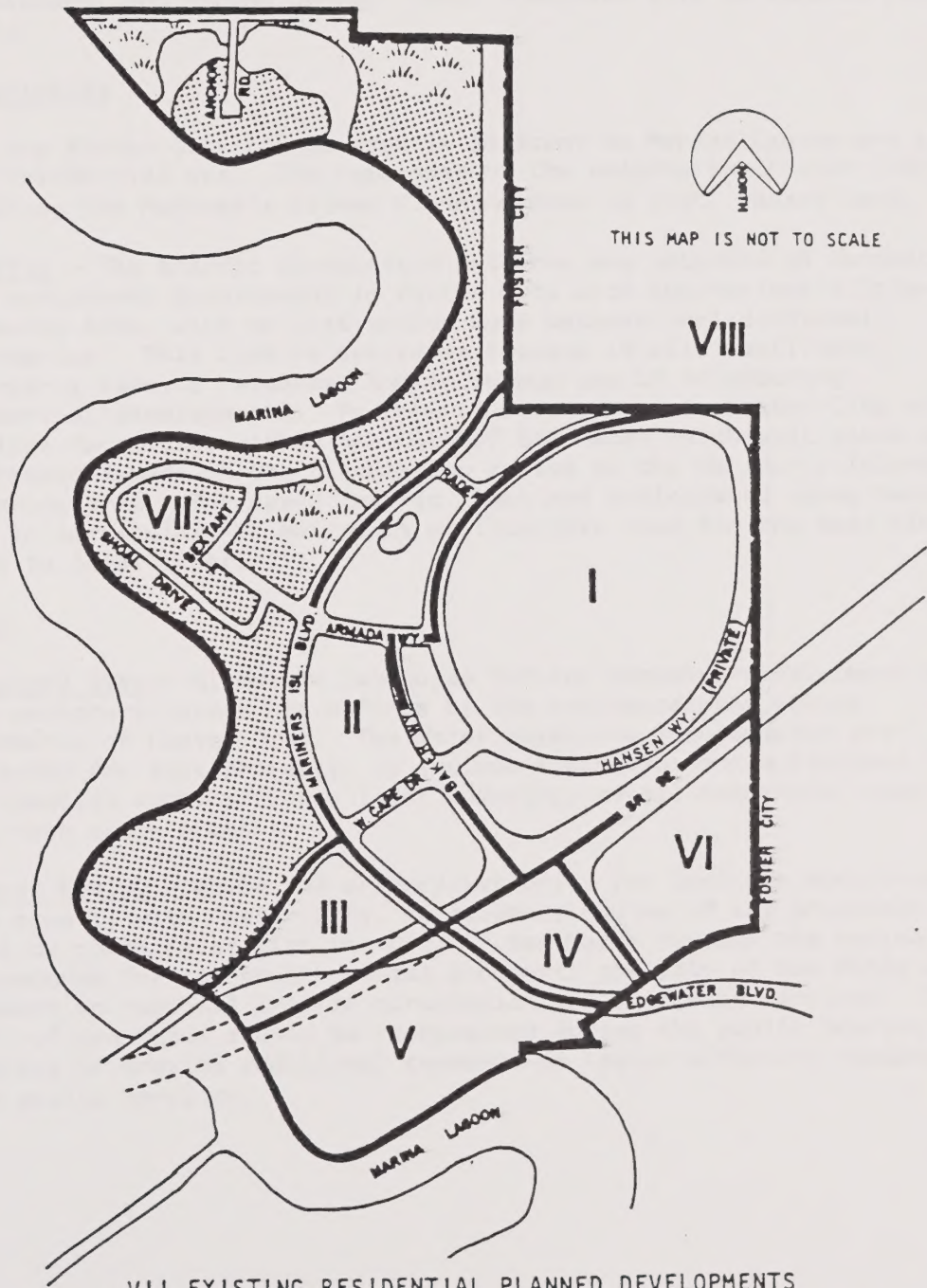
1. Residential Uses - Because all constructed residential projects are planned developments, the existing building forms include both two-story townhouses and three-story flats based on the clustering of accumulated density.
2. Shoreline Uses - As a portion of a Bayfront linear park system, the three elements of the Shoreline District are:

Mariner's Island Park - Developed for active and passive recreation.

Interior Lagoon - The "rabbit ears" lagoon feature is attached to Marina Lagoon and exists on private property with public access for nonmotorized small craft. This water feature may be retained in this existing form or reconfigured. A portion of this water feature shall be permanently preserved and connect directly to Marina Lagoon to function as a boat turning basin.

San Mateo Shoreline Park - The undeveloped parkland at the intersection of East Third Avenue and Mariner's Island Boulevard and the vacant land at the northerly end of Marina Lagoon has been incorporated into a master plan of the entire Bayfront in the approved Shoreline Plan. Included is the area between Anchor Road and Seal Cove which are state lands granted to the City.

3. Existing Private Improvement - Private improvement commencing in the early 1970's has resulted in the construction of five housing projects which have provided over 982 units on 86.52 acres or 11.34 units per net acre. The prevailing form of ownership is condominium and cooperative though many units are rental units. The established site plans, built density, and circulation pattern will not allow additional density intensification.



VII EXISTING RESIDENTIAL PLANNED DEVELOPMENTS

VIII FOSTER CITY PROPOSED DEVELOPMENT

Location

Foster City is adjacent to the east side of the Mariner's Island Planning Area. The westerly city limits are defined by East Third Avenue, the northern terminus of Mariner's Island Boulevard, the Regional Shopping Center, Edgewater Boulevard, and Marina Lagoon. SR92 traverses this peripheral region of Foster City.

Site Characteristics

A portion of the Foster City fringe area is adjacent to Marina Lagoon and is intended for residential use. The remainder of the neighboring Foster City property abutting the Mariner's Island Planning Area is flat, vacant land.

- A. Traffic - The traffic circulation patterns are intended to connect the peripheral development in Foster City with the Mariner's Island Planning Area, with no distinction made between jurisdictional boundaries. This link is desirable because it will facilitate emergency service responses and encourage use of neighboring commercial developments. Peripheral development in Foster City will utilize facilities within the City of San Mateo which will place an increased demand on the circulation system to the Mariner's Island Planning Area. Increased traffic flows are anticipated along Hansen Way in particular, as motorists utilize this road for the most direct link to local arterials.

B. Land Use

1. Proposed Uses - Allowable land uses for any proposed development in the peripheral areas are defined by the ordinances and policy documents of Foster City. Two major mixed-use developments are intended for this property, to include townhouses and multilevel residential uses, offices, light industry, retail commercial uses, and open space areas.
2. Agency Review - While the primary authority for land use decisions in the area is with Foster City, development review of any proposals will be coordinated with the City of San Mateo through the review procedures for the environmental document; the City of San Mateo will comment on regional traffic circulation and emergency services. The City of San Mateo should be represented during the public hearing process to provide additional comments on issues affecting roadways and public services.

SAN MATEO • CALIFORNIA



Detroit Drive Specific Plan

APRIL 1984

DETROIT DRIVE SPECIFIC PLAN

City of San Mateo General Plan

City of San Mateo, California

April, 1984

Recommended by the Planning Commission March 26, 1984
Adopted by the City Council April 16, 1984

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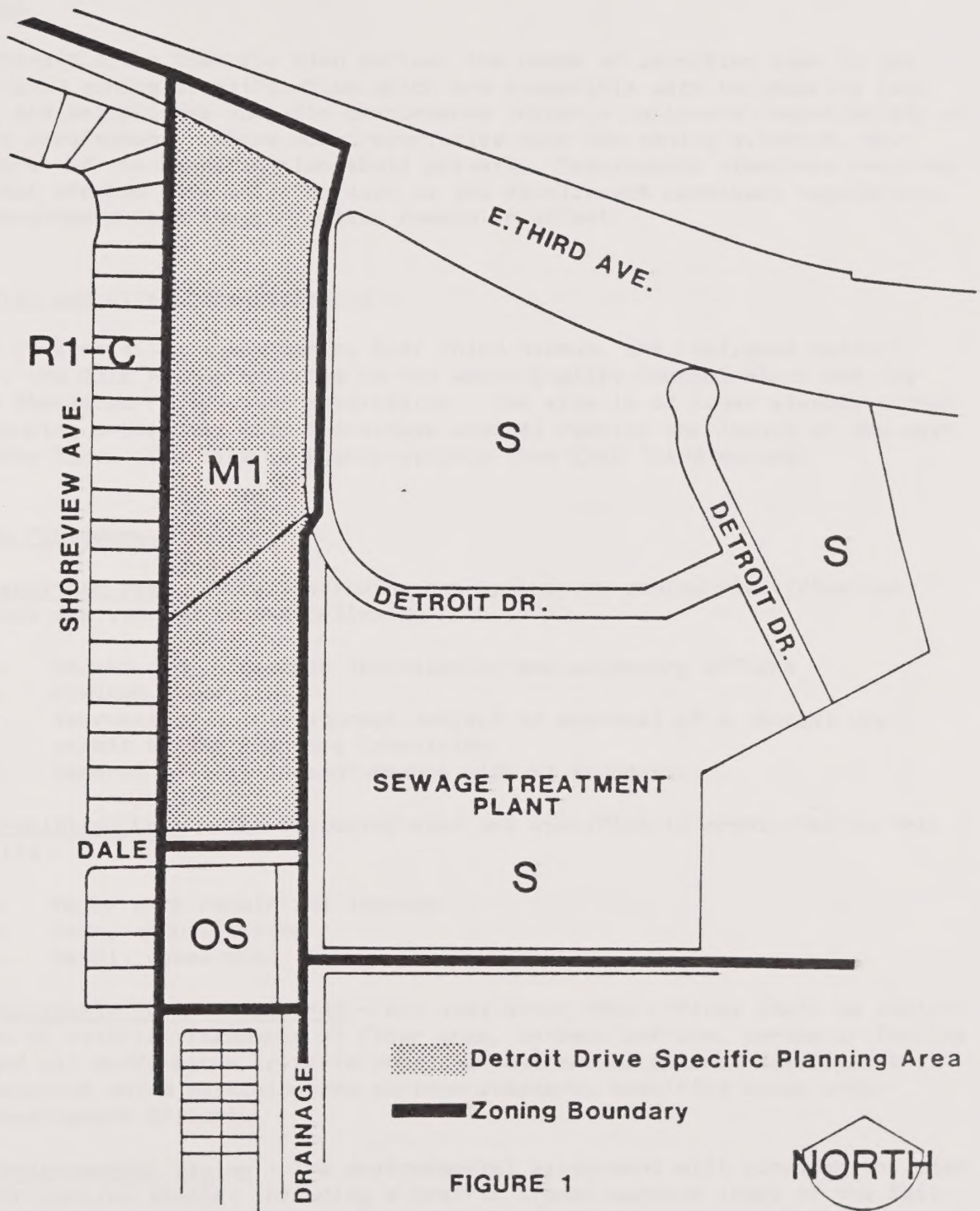
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DETROIT DRIVE SPECIFIC PLAN

Purpose:

The Detroit Drive Specific Plan defines the range of permitted uses in the underlying zoning classification which are compatible with neighboring land uses, and establishes specific performance criteria to insure compatibility of future development. Where more restrictive than the zoning district, the standards of the specific plan shall prevail. Development standards required by other adopted City policies such as the Development Landscape Regulations and Developers Contribution policy remain in effect.

Location and Site Characteristics

The 7.25-acre site is bounded by East Third Avenue, the realigned Detroit Drive, the Dale Avenue entrance to the Water Quality Control Plant and the South Shoreview residential subdivision. The site is of lower elevation than surrounding properties with a drainage channel running the length of the west property line. The site is highly visible from East Third Avenue.

Review Procedures

1. Permitted Uses - Notwithstanding the underlying zoning classification, uses are limited to the following:
 - a. Warehousing, research laboratories and accessory offices
 - b. Limited processing
 - c. Recreation vehicle storage subject to approval of a special use permit by the Planning Commission
 - d. General offices in conformance with E1 standards.
2. Prohibited Uses - The following uses are specifically prohibited on this site:
 - a. Major auto repair and storage
 - b. Heavy manufacturing
 - c. Retail commercial
3. Applicable Zoning Standards - All uses other than offices shall be subject to M1 District standards of floor area, setback buffers, perimeter fencing and all performance criteria unless an authorized planned development is approved which maintains the minimum standards specified below under Development Criteria.
4. Environmental Review - The environmental assessment will consider the need for special studies including a traffic signal warrant study of the East Third Avenue/ Detroit Drive intersection, a storm drainage study and a soils report.

Development Criteria

Site development within the project area shall be required to incorporate the following in the project design:

1. Circulation

- a. Installation of a Class 1 bike path across the southeast corner of the property pursuant to the Bikeways Element of the General Plan.
- b. Access from Dale Avenue limited to emergency vehicles only.

2. Visual Amenities

- a. Provide a minimum six-foot wide, bermed landscaped screen along all property lines, to be located between perimeter fencing and any public right-of-way.
- b. Outdoor lighting control to be directed on site and away from adjacent residences.
- c. All signage subject to approval of a Planned Signing District.
- d. Any openings above ten feet facing westerly shall be subject to approval of the Board of Zoning Adjustments.
- e. Maximum allowable building height equal to the building setback from the west property, with heights in excess of 50 feet subject to special permit approval.
- f. Minimum building setback of 15 feet along the west property line.

3. Noise Control

- a. All activity must conform to M1 District sound level performance standards.
- b. Operating hours for allowed outdoor activities on the west portion of the site limited to weekdays between 7 a.m. and 8 p.m.
- c. Major doorway openings, other than standard doorways to be oriented to East Third Avenue or Detroit Drive.
- d. Install six-foot solid fencing along the west property line abutting the residential district; masonry fencing shall be constructed along the west property line if the drainage channel is culverted for the purposes of paving for vehicle access or parking.

4. Drainage and Soils

- a. Provide a maintenance access easement along the drainage channel.

- b. Underground the drainage channel or provide landscaping and maintenance access improvements to the drainage channel abutting residential properties, subject to approval by the Public Works Department.
- c. Finish floor elevations of all buildings shall be established to provide a minimum floor elevation of 104 feet San Mateo Datum after the anticipated 30 year settlement as determined by soils consultant.

5. Notification

- a. All tenants/purchasers shall be formally advised of conditions existing in the area with regard to the dike, water and sewer conditions, water quality treatment plant, and of the flood-prone area, and that this document be recorded so that all future buyers may be informed of those conditions.

U.C. BERKELEY LIBRARIES



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